



ENVISION

FY15 PY4 Annual Report

October 1, 2014–September 30, 2015

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Prepared for
Rob Henry, AOR
Office of Health, Infectious Diseases and Nutrition
U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20532

Prepared by
RTI International
3040 Cornwallis Road
Post Office Box 12194
Research Triangle Park, NC 27709-2194

ENVISION Project Overview

ENVISION is an eight-year project, funded by the U.S. Agency for International Development (USAID), aimed at providing assistance to national neglected tropical disease (NTD) control programs for the control and elimination of seven targeted NTDs: lymphatic filariasis, onchocerciasis, schistosomiasis, three soil-transmitted helminths (roundworm, hookworm, and whipworm), and trachoma. ENVISION will contribute to the global goal of reducing the burden of these targeted NTDs so that they are no longer a public health problem.

ENVISION is implemented by RTI International in partnership with CBM International, The Carter Center, Helen Keller International, Fred Hollows Foundation, IMA World Health, Light for the World, Sightsavers, and World Vision. The period of performance for ENVISION is September 30, 2011 through September 30, 2019.

Cover Photos: (top) USAID partners and country representatives gather for USAID's Joint Meeting for Elimination Planning ENVISION held in April 2015 in Accra Ghana; (bottom left) Director, Lisa Rotondo signs the Abu Dhabi Declaration at the Annual Meeting of the NGDO NTD Network in Abu Dhabi, United Arab Emirates; (bottom right) Transmission assessment survey conducted in Haiti.



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LIST OF ACRONYMS

AFRO	Africa Regional Office
ALB	Albendazole
APOC	African Programme for Onchocerciasis Control
ASTMH	American Society for Tropical Medicine and Hygiene
BMGF	Bill & Melinda Gates Foundation
CBM	CBM International
CCA	Circulating Cathodic Antigen
CDC	United States Centers for Disease Control and Prevention
CDTI	Community-Directed Treatment with Ivermectin
DEC	Diethylcarbamazine
DFID	Department for International Development
DRC	Democratic Republic of Congo
DSA	Disease-Specific Assessment
DQA	Data Quality Assessment
ELISA	Enzyme-Linked Immunosorbent Assay
EMRO	Eastern Mediterranean Regional Office
ESPEN	Expanded Special Project for Elimination of Neglected Tropical Diseases
EU	Evaluation Unit
FHF	Fred Hollows Foundation
FMOH	Federal Ministry of Health
FPSU	Filariasis Programmes Support unit (Liverpool School of Tropical Medicine)
FTS	Filariasis Test Strip
FY	Fiscal Year
GPELF	Global Programme to Eliminate Lymphatic Filariasis
GSA	Global Schistosomiasis Alliance
GTMP	Global Trachoma Mapping Project
HKI	Helen Keller International
HQ	Headquarters
HRA	High-Risk Adults
ICT	Immunochromatographic Test
ICTC	International Coalition for Trachoma Control
IEC	Information, Education, and Communication
IMA	IMA World Health
IR	Intermediate Result
IST	Inter-Country Support Team
ITI	International Trachoma Initiative
IU	Implementation Unit
IVM	Ivermectin
JAF	Joint Action Forum
KAP	Knowledge, Attitude, and Practices
LF	Lymphatic Filariasis
LFW	Light for the World
LSHTM	London School of Hygiene & Tropical Medicine
M&E	Monitoring and Evaluation
MDA	Mass Drug Administration

MDP	Mectizan Donation Program
MEB	Mebendazole
Mf	Microfilaremia
MMDP	Morbidity Management and Disability Prevention
MOH	Ministry of Health
NGDO	Nongovernmental Development Organization
NGO	Nongovernmental Organization
NNN	NTD NGDO Network
NTD	Neglected Tropical Disease
NTD-SC	NTD Support Center
NTD-STAG	Strategic and Technical Advisory Group on Neglected Tropical Diseases
OV	Onchocerciasis
PAHO	Pan-American Health Organization
PCR	Polymerase Chain Reaction
PC	Preventive Chemotherapy
PDCI	Partnership for Disease Control Initiative
PSSC II	USAID's Programme Santé Santé Communautaire II
PZQ	Praziquantel
RPRG	Regional Program Review Group
RTP	Research Triangle Park
SAC	School-Age Children
SAE	Serious Adverse Event
SAFE	Surgery, Antibiotics, Facial cleanliness, Environmental improvements
SCH	Schistosomiasis
SCI	Schistosomiasis Control Initiative
SEARO	Southeast Asia Regional Office
SMS	Short Message Service
SOP	Standard Operating Procedure
STH	Soil-Transmitted Helminths
TA	Technical Assistance
TAF	Technical Assistance Facility
TAS	Transmission Assessment Survey
TCC	The Carter Center
TEC	Trachoma Expert Committee
TEO	Tetracycline Eye Ointment
TF	Trachomatous Inflammation-Follicular
TFGH	Task Force for Global Health
TIPAC	Tool for Integrated Planning and Costing
TIS	Trachoma Impact Survey
UOEEAC	Uganda Onchocerciasis Elimination Expert Advisory Committee
USAID	United States Agency for International Development
USD	United States Dollar
WASH	Water, Sanitation, and Hygiene
WG-CS	Working Group for Capacity Strengthening
WHO	World Health Organization
WPRO	Western Pacific Regional Office
WV	World Vision
ZTH	Zithromax

YEAR IN REVIEW

In its fourth year, ENVISION has undertaken continued expansion and progress. Together with the DFID-funded project, global trachoma mapping is nearing completion in all accessible areas, including in all USAID-supported countries. Mapping of other PC NTDs has high momentum and is also progressing well. MDA scale up has reached its highest acceleration yet, with countries and partners advocating continuously to fill the implementation gaps. Countries that are leading the way are undertaking numerous disease specific assessments; the results of these are feeding into our global understanding of implementation, coverage, and monitoring and evaluation needs.

ENVISION's role as a global leader has expanded this year, with ENVISION staff being invited to serve on new and additional working groups and expert committees, providing the opportunity to bring ENVISION country experiences to bear on global discussions. ENVISION's global leader role was highlighted at the annual meetings of the NTD NGDO Network, chaired by several ENVISION staff. ENVISION's link to the operational research community is also proving crucial; the project's experiences inform research design and implementation and the results are quickly put into practice when adopted by the international community.

The project is also taking note of key challenges during the year. Some national programs continue to experience challenges with timely collection of and reporting on MDA data. Coverage in urban areas and for certain NTDs (e.g., SCH) is lower than expected and needs to be addressed. Critical review of data through data quality assessments and coverage surveys are now underway and will provide insight for improvements in FY16.

The ENVISION project portfolio includes countries at various stages of progression. The following briefs provide highlights for each of the countries supported by ENVISION. Please see the country reports for more detailed analysis of FY15 activities.

Benin

FY15 was a significant year for the National NTD Program and ENVISION in Benin. All planned FY15 activities were successfully carried out, most notably the data quality assessment (DQA) implementation which has provided significant insight to issues with data quality and reporting in the country which will be addressed in the coming year. ENVISION supported mapping/remapping of two communes for trachoma, completing the national baseline map for trachoma. With data for all the communes, the MOH was able to organize the Trachoma Action Plan and to engage the endemic departments and communes in planning for implementation of the SAFE strategy. Additionally, mapping for STH/SCH was completed in 39 communes which completes the mapping of these diseases.

In early FY15, an assessment of IEC materials was conducted and the results were then used to readjust social mobilization strategies, such as the involvement of town criers and community drug distributors (CDDs) ahead of the STH and SCH MDA. The new strategies were conclusively positive, with

improvements in the proportion of districts that met coverage targets for SCH and STH MDAs. Another achievement was the full scale up of mobile money as a means to pay per diems under the NTD program in Benin. Less than 15 months after the beginning of this partnership, ENVISION Benin is now using MTN Benin's Mobile Money platform to securely issue per diem payment to more than 15,000 participants. Both innovations were presented at the 64th Annual meeting of American Society of Tropical Medicine and Hygiene.

Cameroon

Despite growing insecurity in the northern regions, the Cameroon NTD program continued to provide high quality MDA and conduct numerous DSAs in a single year, while steadily advancing toward control and elimination objectives for all five targeted NTDs. This year, all 181 health districts received treatment against one or more NTD. Results from pre-TAS conducted in 27 districts indicate that each district passed the assessment and can conduct TAS in FY16. The planned trachoma Impact survey was delayed due to insecurity but is expected to be conducted early in FY16.

In FY15, the national program continued to make improvements to program data quality, based on the issues identified during the DQA conducted in FY14. Activities included the revision of data collection tools and reinforcement of best practices for data reporting during the training sessions.

Democratic Republic of Congo

ENVISION collaboration with the MOH resulted in successful completion of more than 85% of activities planned in DRC for FY15, despite some challenges within the national NTD program leadership and maintaining strong partner coordination. IEC materials were developed and validated by the MOH in the presence of partners in PC NTD activities and WHO representatives. These posters, flip charts, flyers, and television and radio spots are being used countrywide for promoting better knowledge of NTDs and the MDA.

For the first time, integrated school based STH/SCH MDA and community based LF/OV MDA took place in Bandundu and Maniema provinces with all the reported results so far showing all targeted districts achieved 80% program coverage. Trachoma mapping was completed in all targeted HZs except one which was inaccessible due to security concerns. For the first time ever, DRC will receive donated Zithromax to conduct trachoma MDA in FY16.

Ethiopia

In FY15, ENVISION support for Ethiopia focused on two central themes: partner coordination to achieve greater MDA scale-up and preparing Ethiopia to achieve elimination and control goals by 2020. In terms of partner coordination, ENVISION demonstrated one of its major strengths by bringing together a patchwork of different partners and donors to leverage funding and achieve greater impact. The results of this effort include coordinating an exchange of support for TT surgery, Zithromax MDA and WASH elements between DFAT and USAID, thereby providing all of Western Oromia, a population exceeding 9

million, with full support for the SAFE strategy. It also includes closing all of the remaining gaps for OV and LF in the region of Beneshangul-Gumuz through a coordinated strategy between RTI, The Carter Center and APOC. In terms of preparing Ethiopia to achieve elimination, ENVISION was instrumental in compiling all of the country's NTD data, previously spread among all of the regional and zonal offices, into the integrated NTD database. ENVISION also has been a primary technical advisor on the revised National Plan, the LF morbidity guidelines, the revised national trachoma action plan, the OV elimination guidelines, and the Hon. Minister's Initiative to clear the TT backlog. By supporting the leadership of the FMOH, ENVISION has helped put Ethiopia on a path in line with its 2020 goals, an impressive feat considering Ethiopia's size, population, and disease burden.

Guinea

In FY15, ENVISION's work with the Ministry of Health and Public Hygiene (MSHP)'s National Program for Onchocerciasis and Blindness Control and Neglected Tropical Diseases (PNLOC/MTN) in Guinea resulted in several key achievements advancing the country's progress towards NTD control and elimination, in spite of the persistence of the Ebola epidemic.

With ENVISION's support, the country implemented MDA for LF in 9 districts (6 of which are co-endemic for OV, and 4 for STH) and for trachoma in 7 districts. The PNLOC/MTN decided to postpone MDA for SCH until FY16, as side effects of PZQ may sometimes be interpreted as symptoms of Ebola. Intensive social mobilization, taking the drugs publicly (to show that they do not cause harm), and adding time for mop-up during MDA were key strategies to encourage MDA participation in communities affected by Ebola.

Haiti

As a sign of the tremendous progress towards LF elimination in Haiti, activities this year focused on gearing up for transmission assessment surveys (TAS). ENVISION worked with the Haiti National NTD Program (HNTDCP) to train twenty-five lab technicians across 10 departments in the diagnostics used for pre TAS and TAS surveys, resolving a shortage of lab personnel trained to conduct these surveys. As a consequence, HNTDCP conducted pre-TAS in 21 sentinel sites and spot checks, with the majority of sites becoming eligible for TAS. In addition, with assistance from ENVISION and CDC, the Program conducted 14 TAS, again with the majority of EUs passing TAS and as consequence, stopping TAS and moving into a surveillance phase. The HNTDCP is planning to conduct further surveys such as mini TAS and coverage survey to determine the reasons for not passing TAS in three EUs. Of note, 12 of 14 TAS used integrated LF TAS/malaria surveys. Another TAS also integrated STH, marking the first time an LF/STH/malaria integrated TAS has ever been implemented.

To affect greater reductions in STH prevalence, ENVISION began supporting a second round of albendazole (ALB) distribution in the Grande Anse Department for school-aged children (SAC), found in a FY14 prevalence survey to have persistent high STH prevalence (55.1%). On the data front, Haiti began working to implement the integrated NTD database and conducted its first data quality assessment (DQA) in the North and West departments.

Indonesia

In FY15, Indonesia showed significant scale up in geographic coverage of LF MDA. This was in part due to finalizing mapping and remapping throughout the country, which lowered the number of LF-endemic districts from an estimated 334 districts needing MDA in 2011 (before ENVISION's support to mapping began) to 241 at the close of FY15. This was also due to an increase in Government of Indonesia's support to MDA (from national and local budgets) from 32 districts in calendar year 2014 to 94 districts in calendar year 2015. Quality of MDA improved in ENVISION-supported districts between 2013 and 2014, with more districts achieving effective coverage and supervisory visit results showing more directly observed treatment. FY15 ENVISION activities such as developing a standardized IEC package, airing a public service announcement through the country, and training of provincial focal points on effective supervision are anticipated to continue to improve MDA effectiveness. While these accomplishments bring Indonesia closer to achieving their 2020 LF elimination goal, challenges of interpreting TAS failure in Brugian areas where antibody tests are used still remain.

STH-only MDA has slowly been scaling up in districts which are not endemic for LF, through advocacy and coordination meetings at the provincial level. However, delayed procurement of local ALB has hampered efforts to integrate these activities with Vitamin A distribution for pre-school aged children.

Mali

Remarkable achievements have been made in NTD control and elimination in Mali this year, despite insecurity in the regions of Kidal, Gao, and Tombouctou. With ENVISION assistance, Mali conducted pre TAS in 14 Health districts (HDs); all were assessed to be eligible for TAS. In addition, the program conducted TAS in 15 HDs. Results showed that all 15 HDs were below the critical cut-off and can now stop MDA. A SCH/STH survey was also conducted in 15 HDs to determine if MDA is still needed; results are still pending. The Mali NTD team received training on the integrated NTD database and will soon begin working to populate this database with historic NTD data, with the help of a consultant, funded by the project.

Also of note this year, is the addition of a drug manager, seconded by ENVISION to help address drug management issues facing the Program. (A large quantity of drug was lost in the central warehouse which impacted MDA campaigns this year). A committee composed of MOH representatives and partners has been constituted to monitor the drugs received and to avoid future losses.

Mozambique

During FY15, a wide range of planning and capacity building activities were supported alongside the routine implementation of integrated MDAs. A primary focus during the fiscal year was to ensure that the national program had actionable trachoma (TF) and trichiasis (TT) data from all suspected districts and a clear plan to implement an appropriate strategy to achieve 2020 goals for eliminating blinding trachoma. This included completing an early district-level trachoma Impact Assessment in Niassa after two rounds of MDA, with results indicating that all districts were below 5% TF and below 0.1% TT. The

program also continued to make progress in scaling-up MDA with Zithromax and tetracycline ointment in all 19 districts assessed to be >10% despite global shortages of Zithromax; Cabo Delgado and Manica completed MDA in Q4 FY15 and Nampula and Zambézia completed MDA in Q1 FY16. In addition, the national program has made progress with promoting the F&E components of the SAFE strategy to ensure that a comprehensive approach for eliminating trachoma is being adopted by the national program.

Nepal

Despite the two devastating earthquakes that hit Nepal in April 2015, ENVISION's work with the Ministry of Health and Population (MoHP) and other key partners resulted in several key achievements this year, advancing the country's progress towards NTD control and elimination. The project completed the national STH prevalence survey started in FY14 and helped collect and analyze WASH related-indicators from schools and students in Nepal. ENVISION supported LF MDA in 18 districts resulting in 72.77% epidemiological coverage. ENVISION also funded the National Trachoma Program to conduct trachoma pre-validation surveillance surveys in 10 districts. Results from surveys indicate that there has been no resurgence of active trachoma in any districts; some TT cases have been found and referred for trichiasis surgery. Impact surveys in two districts were also conducted. As a result of the findings, MDA will be stopped in the two districts, and they will be eligible for surveillance surveys in FY17.

Nigeria

Nigeria's NTD work this year focused on sustaining scale-up and improving data quality and management. Training on the Integrated NTD Database took place in all six geopolitical zones, resulting in high uptake of the database as a tool for data management and reporting across the country. Due to TIPAC training at state and national levels, the TIPAC was widely used during FY15. Two DQAs revealed areas for improvement and led to an immediate decision to include more time on data recording as part of the cascaded MDA trainings. Planning began to expand USAID support into Cross River State beginning in early FY16 and Benue state in early FY17, a step which is strongly endorsed by the Federal Ministry of Health and other partners.

Unfortunately, program scale-up this year was hampered by serious delays in drug deliveries. Despite not reaching FY15 treatment targets, ENVISION implementing partner, The Carter Center worked to successfully implement MDA across nine USAID-supported states, supporting over 17.5 million treatments for OV, LF, SCH, and STH. Additionally, two USAID-supported states, comprising six evaluation units, passed TAS in FY15.

Senegal

In line with global goals Senegal is committed to eliminating LF and trachoma by 2020. In 2015, the MOH's Disease Control Directorate (DLM), in collaboration with its partners, treated all 50 districts endemic for LF, 37 of them for the first time. The country's first TAS surveys are anticipated for 2017 in the seven districts of Tambacounda Region. For trachoma, MDA conducted in late FY15 achieved program coverage of over 80% in all five districts. RTI's financial and technical support enabled the MSAS's trachoma mapping team to complete the country's remaining baseline mapping, in the three districts of Sédhiou Region (Boukiling, Goudomp, and Sédhiou). As all three districts registered TF below 5%, no MDA for Trachoma is required in those districts. The MOH conducted trachoma impact assessment surveys with support from ENVISION in three districts in FY15, with results anticipated for early FY16. Following extended discussion and the PC NTDs technical review meeting, organized with support from ENVISION, the MOH made an important decision to align the SCH treatment strategy with WHO guidance using treatment frequency based on prevalence, starting in 2016.

RTI has forged a strong working relationship with the DLM, and is the only partner participating in the DLM's internal NTD meetings. In FY15, RTI's Senegal team provided technical support for the implementation of most PC-NTD-related activities under the MOH's 2015 NTD annual work plan. RTI also strengthened the capacity of the MOH's central-level NTD team by leading training on the use of two key WHO tools, the Integrated NTD Database and the Tool for Integrated Planning and Costing (TIPAC).

Tanzania

After years of persistence and the support of ENVISION, the Tanzania NTD Control Program (TNTDCP) has started seeing results and is moving closer to meeting the 2020 LF and trachoma elimination objectives. During the year, results from pre-TAS assessments conducted in 2014 revealed that 25 evaluation units (EUs), comprising 38 districts, were ready for TAS. Consequently, in September, the country program conducted TAS in 20 (33 districts) of the 25 of EUs. Preliminary results indicate all the districts have passed the TAS. In collaboration with the Task Force for Global Health, the program also conducted LF remapping using the new WHO protocol in 10 districts. After the new protocol was piloted, ENVISION provided funds to finish LF remapping in the remaining 53 districts. Findings from the results show that LF MDA is not necessary in all 63 districts, thus "shrinking the map" of LF endemicity in Tanzania. All these are remarkable accomplishments by the Tanzania NTD control program in moving the country closer to achieving LF elimination objectives.

With ENVISION support, the program also completed trachoma impact surveys in 20 districts. Preliminary results indicated 14 districts can stop MDA. However, six of the surveyed districts will require one more round of MDA. In addition, the prevalence of STH and SCH as shown by various sentinel and spot-check site assessments has also shown to be on the decline.

Uganda

Uganda's NTD Control Program's focus this year has been on strengthening data quality and supportive supervision. Mapping is complete for all targeted NTDS and there are no gaps in geographical treatment or assessments. Advocacy and social mobilization messaging now include discussions of elimination and the MOH has begun to gather data and documentation for LF, OV and trachoma elimination dossiers. Work to populate the WHO Integrated NTD Database is almost complete.

In FY15, 17 districts passed LF TAS, bringing the number districts to achieve stop-MDA status to 33 out of a total 54 districts endemic for LF. Trachoma impact assessment surveys were conducted in 14 districts, with 12 districts showing TF prevalence <5% and two with a TF prevalence in the 5-9.9% range. Onchocerciasis transmission interruption was attained in one focus area, and four additional foci completed a 3-year post treatment surveillance phase and will be re-assessed in order to declare elimination. SCH and STH programs continue to benefit from integrated MDA efforts and have collected evidence on prevalence reductions in FY15.

As Uganda moves closer to national elimination and control goals, better coordination of cross border activities is becoming a higher priority, especially with OV transmission across the border with the Democratic Republic of Congo (DRC) and trachoma cross-border activities in Kenya and South Sudan. The Uganda NTD Secretariat has acknowledged areas of improvement for support supervision and data quality management, and has increased attention to these matters.

INTRODUCTION

The **U.S. Agency for International Development (USAID) ENVISION project's (2011–2019)** mandate is to support the vision of World Health Organization (WHO) and its member states by targeting the control and elimination of seven neglected tropical diseases (NTDs): lymphatic filariasis (LF), onchocerciasis, schistosomiasis (SCH), trachoma, and three soil-transmitted helminths (STH); roundworm, whipworm, hookworm). ENVISION's goal is to strengthen NTD programming at global and country levels and support Ministries of Health (MOHs) to achieve their NTD control and elimination goals.

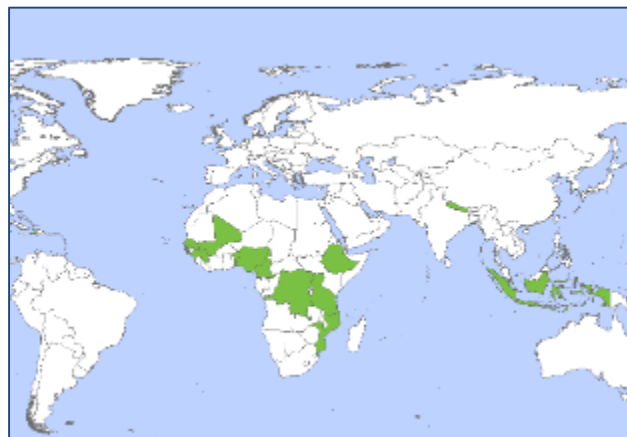
At the global level, ENVISION—in coordination and collaboration with WHO, USAID and other stakeholders—contributes to several technical areas in support of global NTD control and elimination goals, including

- Drug and diagnostics procurement, where global donation programs are unavailable;
- Capacity strengthening;
- Management and implementation of ENVISION's Technical Assistance Facility (TAF);
- Disease mapping;
- NTD policy and technical guideline development; and
- NTD monitoring and evaluation (M&E).

At the country level, ENVISION provides support to national NTD programs in 14 countries in Africa, Asia, and Latin America (Figure 1) by providing strategic technical, operational, and financial assistance for a comprehensive package of NTD interventions, including the following:

- Strategic annual and multi-year program planning
- Advocacy
- Social mobilization and health education
- Capacity strengthening
- Baseline disease mapping
- Preventive chemotherapy (PC) or mass drug administration (MDA) implementation
- Drug and commodity supply management and procurement
- Program supervision
- M&E, including disease-specific assessments (DSAs) and surveillance

Figure 1. Countries supported by ENVISION in FY15

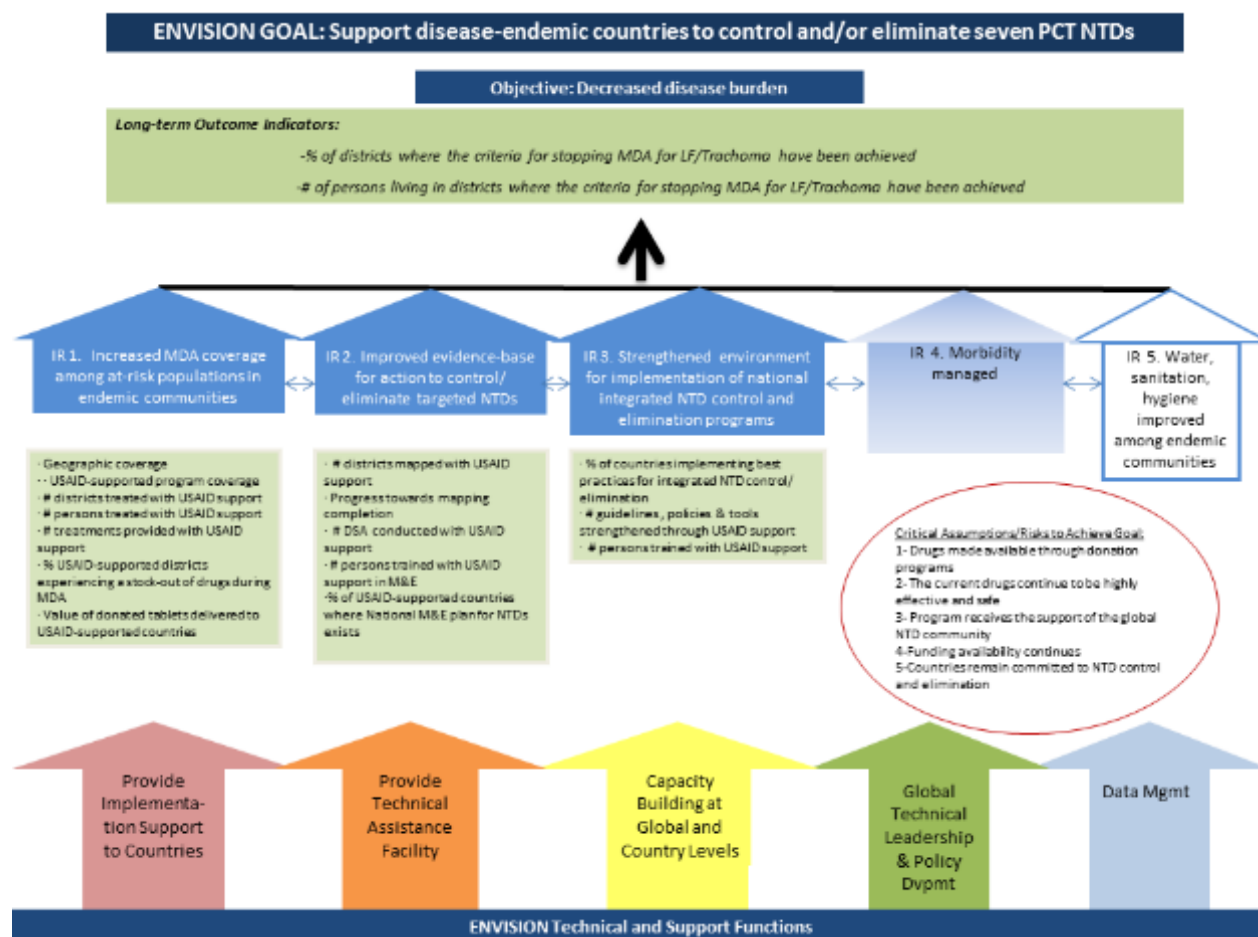


Countries include Benin, Cameroon, Democratic Republic of Congo, Ethiopia, Guinea, Haiti, Indonesia, Mali, Mozambique, Nepal, Nigeria, Senegal, Tanzania, and Uganda.

ENVISION Project Framework

Based on the WHO NTD rollout package¹ and accomplishments from the earlier USAID-funded NTD Control Program (2006–2012), RTI and USAID designed the ENVISION project with the goal of supporting disease-endemic countries to control or eliminate seven NTDs. Through a package of technical and support functions, ENVISION aims to empower governments of endemic countries to lead national NTD control programs and scale up the delivery of PC for the USAID-targeted NTDs.

Figure 2: ENVISION results framework²



¹ Hanson C, Weaver A, Zoerhoff KL, Kabore A, Linehan M, Doherty A, Engels D, Savioli L, Ottesen EA. (2012). Integrated implementation of programs targeting neglected tropical diseases through preventive chemotherapy: Identifying best practices to roll out programs at national scale. *Am J Trop Med Hyg* 86: 508–513.

² N.B. A revised framework was developed by ENVISION and approved by USAID in September 2015. This will be included in future reports.

The ENVISION Results Framework graphic (Figure 2) illustrates the results framework through which project activities are designed, implemented, monitored, and evaluated. ENVISION technical and support functions include (1) implementation support to countries, (2) technical assistance (TA) for national NTD programs, (3) capacity building at global and country levels, (4) global technical leadership and policy development, and (5) data management. These functions are designed to support activities aiming at the agreed ENVISION Intermediate Result (IR) domains:

IR 1) increased MDA coverage among at-risk populations in endemic communities

IR 2) improved evidence base for determining and assessing action to control/eliminate targeted NTDs

IR 3) strengthened strategic approach and guidelines for implementing national integrated NTD control and elimination programs

To achieve ENVISION's goal of strengthening NTD control at global and country levels, ENVISION engages with local, regional, and international stakeholders to provide technical, operational, and financial assistance and build capacity, ensuring that standard tools (such as the WHO Integrated NTD Database), techniques, and state-of-the-art approaches (such as data quality assessments [DQAs]) are used effectively. By influencing global policies and building local capacities and systems, ENVISION aims to foster efficient and sustained integrated NTD control beyond the life of the project.

Several critical assumptions are considered during ENVISION project work planning and implementation, including the continued availability of safe and effective donated drugs, the support of the global NTD community, the timing and availability of project funding, and the commitment and leadership of national NTD programs of endemic country governments. These assumptions speak to the importance of the project's reputation and leadership throughout the NTD community and are continuously monitored by project management. The project also faces the risk of not reaching its targets due to political instability (e.g., as experienced in Mali during 2013/2014) and disease outbreaks that affect national health care systems and communities' relationships with those systems (e.g., Ebola outbreak in West Africa in 2014 affecting ENVISION programming in several countries, specifically Guinea, Mali, and Nigeria).

Completing the Epidemiological Map

Completing the NTD epidemiological map is a critical milestone for USAID-supported countries in working toward global NTD control and elimination goals. Therefore, targeted baseline prevalence mapping is a priority activity for ENVISION country teams when working with national NTD programs. ENVISION's strategy for helping countries achieve their mapping targets includes providing expertise and support through the following approaches:

1. Determine the geographic areas to be mapped
2. Identify best mapping protocol and methodology to use
3. Train NTD program staff in disease mapping and provide necessary tools and diagnostics

4. Provide technical, operational, and financial support for mapping suspected areas and promote the use of mobile technologies for data collection, analysis, and interpretation, as well as dissemination of results.

Partner coordination in mapping. Among the major implementing and coordinating partners supporting NTD control and elimination, ENVISION continues to play a lead coordinating role to ensure that gaps in mapping are being adequately funded, whether through USAID funding or funding from other donors, or a combination of several sources. ENVISION's coordinating role among implementing partner organizations is quickly expanding with the push and momentum to complete this crucial early stage of NTD programs so as to move forward on the continuum to elimination.

Mass Drug Administration

MDA is the administration of drugs to entire populations to control, prevent, or eliminate disease that exceeds WHO established thresholds. Seven NTDs, all targeted by the USAID NTD program, and hence ENVISION, can be controlled and treated through MDA, using safe, single-dose medicines. This is made possible by the generous donation of several medicines from the pharmaceutical industry and their respective drug donation programs. Treatment of at-risk populations for multiple years can lead to control or elimination of these diseases and can relieve populations from daily suffering. ENVISION's strategy for helping countries achieve their MDA targets includes providing expertise and support through the following approaches:

1. Mobilize resources necessary to reach national scale, including funding, medicines, and other supplies
2. Ensure MDAs target eligible at-risk populations
3. Reach MDA coverage targets, as defined by WHO for each of the seven NTDs
4. Monitor data quality; promote effective data collection, storage, and use; and provide technical assistance for electronic data collection
5. Conduct periodic post-MDA coverage surveys and analysis of reported MDA coverage
6. Disseminate programmatic results and achievements

MDA coverage. MDA coverage is a critical indicator for NTD programs and is necessary if countries are to reach global 2020 targets for control and elimination. The ENVISION project helps MOHs monitor multiple kinds of MDA coverage, including geographic, program, and epidemiological coverage.

Disease-specific Assessments

DSAs are an important milestone for NTD programs, helping NTD program managers to measure programmatic impact and make important determinations about the continuation or discontinuation of treatment and other complementary interventions. ENVISION's approach is to support DSAs according to WHO guidelines regarding epidemiology and MDA coverage, taking timing into account as indicated by the data and the approval of the WHO Regional Program Review Group (RPRG) or other relevant body.

ENVISION prioritizes DSAs in areas where USAID has previously supported MDA, with preference given to both LF and trachoma assessments, when necessary due to funding limitations. In addition, ENVISION focuses efforts on those DSAs that are critical for decision making. Consequently, ENVISION does not support LF mid-term DSAs unless there is a strong technical argument in country that such an assessment ought to take place. For all DSAs conducted throughout the ENVISION portfolio, the project works with national programs to achieve the following:

1. Ensure DSAs are well-coordinated and of high quality
2. Increase coordination with WHO RPRGs and drug donation programs
3. Disseminate DSA results, identifying best practices where possible
4. Address program failures revealed by DSAs, investigating issues that may have contributed to these failures and addressing them as appropriate
5. Celebrate program successes revealed by DSAs, supporting national programs to move to the next program phase

Coordination with WHO RPRGs: The WHO RPRGs serve as the primary and official body reviewing the progress made by national NTD programs toward achieving disease-specific goals. Recommendations from the RPRG are made to country delegations regarding resource mobilization, collaboration with partners, program strengthening, inter-country mutual support, operational research, and compliance with WHO norms and guidelines.

National NTD programs rely heavily on guidance from WHO RPRGs to determine when districts are eligible for LF transmission assessment surveys (TAS) and to reach stop-treatment determinations. As national NTD programs move toward LF elimination, the WHO RPRGs must provide increasing review and recommendations to countries.

Each WHO RPRG has within its remit the review of trachoma impact surveys (TISs). Until a more formal mechanism is defined, the RPRG informally works with the International Trachoma Initiative (ITI) Trachoma Expert Committee (TEC). ENVISION supports the RPRG and TEC decisions and helps countries with the decisions' interpretation.

Capacity Strengthening

Capacity strengthening for NTD control and elimination has become a clear priority for ENVISION countries and for WHO, as evidenced by country requests and the continued efforts of the Working Group on Capacity Strengthening (WG-CS) that was formed as part of the WHO Strategic and Technical Advisory Group for NTDs (NTD-STAG). USAID and ENVISION endorse capacity-strengthening activities as an important element of assisting countries to reach NTD goals. ENVISION contributes to improved global NTD capacity—knowledge and skills—in several ways:

- Development of new courses and resources to address additional training gaps
- Development of a network of facilitators and resource individuals to amplify scale-up of ENVISION's capacity-strengthening efforts

- Funding and technical support for participation in regional and country-level trainings
- Ongoing opportunities for national NTD program staff to access peer support and share experiences during regional trainings, meetings, and workshops
- Support for cascaded training for MDA in ENVISION-supported countries

Evidence-based Decision Making

ENVISION countries are in varying stages of program maturity, ranging from completing mapping and scaling up MDA to transitioning to post-MDA surveillance. As a national NTD program matures, the M&E requirements also evolve. ENVISION's enhanced M&E strategy prioritizes the following:

- Increasing the capacity of countries to implement nationally owned M&E for NTD control and elimination in line with WHO guidelines
- Implementing M&E activities within a programmatic context
- Facilitating the use of data from USAID-supported NTD projects

Since the inception of ENVISION, the project's M&E team has been providing feedback to countries on coverage performance data submitted through the USAID NTD Disease and Program workbooks for the semi-annual reports. This feedback has included requests to provide information about the reasons for any low reported coverage as well as to identify strategies to improve coverage in upcoming MDAs. By providing this feedback, ENVISION facilitates a culture of data use, rather than simply data reporting.

Support for USAID's NTD Program M&E system. As USAID's flagship project for NTD control and elimination, ENVISION is responsible for the development and maintenance of USAID's NTD Program M&E system, which consists of several data acquisition tools and a web-based M&E database. M&E data for multiple USAID-supported activities in NTD control and elimination are stored in USAID's online NTD Database, managed by ENVISION, and are used to support USAID reporting and guide national programs in making programmatic decisions.

PROJECT MANAGEMENT

Activities during the first half of the year focused on coordination with USAID to finalize approval of the project level and country work plans for fiscal year³ 2015 (FY15). The project level FY15 work plan was approved by USAID on December 22, 2014 and the last FY15 country work plan was approved on February 24, 2015. During the second half of the year, ENVISION and USAID staff were highly engaged in reviewing FY15 activities and planning for FY16. This included high-level budget allocation discussions, an in-depth planning session with USAID on July 13th, in-country work planning workshops in every ENVISION country, and follow up meetings to review documents and ensure plans are strategic, within budget, and innovative. Planning for global level activities (i.e., Tropical Data, BCC review, mapping) involved detailed discussions with WHO, USAID, and ENVISION partner organization staff.

RTI also made several changes to the management structure of the project, with Lisa Rotondo taking on the role of Director, Amy Doherty moving into the role of Deputy Director, and Eric Ottesen becoming Chief Technical Advisor to ENVISION. RTI welcomed the new USAID ENVISION AOR and assisted with the transition to the NTD team with multiple strategy and orientation sessions in the second half of the year.

The RTI Senior Management team was expanded to include four additional staff. A new Knowledge Management group was configured, which is composed primarily of staff working in support of M&E, communications, and capacity strengthening. New staff were also brought on to support this new structure.

ENVISION enjoyed strong representation at the Annual Meeting of the American Society of Tropical Medicines and Hygiene (ASTMH) held in New Orleans, November 2-6, 2014, where the project's results and achievements were presented in collaboration with ministries of health. In addition, RTI worked closely with FHI 360 and USAID to organize USAID's first Joint Meeting for Elimination Planning, which was held in Accra, Ghana, April 21-24, 2015.

Partner Collaboration

ENVISION is led by RTI International (RTI) in partnership with CBM International (CBM), The Carter Center (TCC), Fred Hollows Foundation (FHF), Helen Keller International (HKI), IMA World Health (IMA),

Table 1. ENVISION partner support by country

Country	ENVISION Partner
Benin	RTI International
Cameroon	Helen Keller International
Guinea	Helen Keller International
DRC	RTI International, IMA World Health, World Vision
Ethiopia	RTI International, Light for the World, Fred Hollows Foundation
Haiti	IMA World Health
Indonesia	RTI International
Mali	Helen Keller International
Mozambique	RTI International, Light for the World
Nepal	RTI International
Nigeria	RTI International, The Carter Center
Senegal	RTI International
Tanzania	IMA World Health, RTI International
Uganda	RTI International, The Carter Center

³ The U.S. Government fiscal year runs from October 1 through September 30.

Sightsavers, Light for the World (LFW), and World Vision (WV). ENVISION partner support by country is provided in Table 1. Fred Hollows Foundation is the newest ENVISION partner, having joined the project team on October 14, 2014. Multiple ENVISION-supported countries are being implemented by a consortium of ENVISION partners (Ethiopia, Democratic Republic of Congo [DRC], Uganda, Nigeria), with regular partner coordination crucial to ensure programmatic success.

Quarterly partner calls. RTI led conference calls which included representation from all ENVISION partners on October 27, 2014 and April 15, 2015. These calls provide an opportunity for sharing information and updates among ENVISION partners, discussing project challenges and successes, and reviewing global NTD trends.

USAID Partners' Meeting, December 4-5, 2014. Several staff from the ENVISION project participated in a USAID-led meeting in Washington, D.C. for its NTD project implementers to discuss USAID's portfolio and share best practices.

Annual ENVISION Partners' Meeting, January 8, 2015. Fifty-four people from USAID, RTI, CBM, TCC, FHF, HKI, IMA, LFW, Sightsavers and WV attended the day-long meeting held at the Metro Center Marriott in Washington DC. The meeting included updates from USAID and RTI in addition to presentations focused on M&E, capacity strengthening, coordination with operational research projects, mobile health platforms for NTD programs, and procurement.

RTI ENVISION Management Meeting, March 20, 2015. RTI organized an ENVISION project meeting at RTI Corporate headquarters in Research Triangle Park (RTP), NC. This meeting included all RTI ENVISION staff from RTP and Washington D.C. as well as Country Resident Advisors from Ethiopia, Indonesia, Mozambique, Nigeria, and Senegal. Discussions focused on FY16 work planning, project operations and sharing of best practices and provided the unique opportunity to highlight the project's work to the broader RTI community, including RTI CEO Wayne Holden.

ENVISION Training Series. ENVISION launched the ENVISION Training Series, which provides an opportunity for US-based staff from RTI International, FHI 360, USAID, and partner organizations to gain experience with the NTD tools techniques used in the field. The trainings provide in-depth detail on the subject matter and are comparable to field-based ENVISION-supported trainings.

END in Africa and ENVISION Joint Meeting for Elimination Planning, April 21–24, 2015. ENVISION Senior Management from RTI worked with USAID and FHI 360 to organize and facilitate the meeting that was held in Accra, Ghana. MOH staff from 10 countries supported by USAID's NTD program participated in the meeting and discussed issues related to cross border challenges.

Sightsavers and RTI meeting, June 22, 2015. Lisa Rotondo and RTI's Vice President for Global Health, Dr. Richard Reithinger, attended a partnership meeting at ENVISION partner Sightsavers' headquarters office in Haywards Heath, England. They met with Caroline Harper (Sightsavers' CEO) and Tom Millar (Operations Manager, GTMP) and discussed the respective organizations roles on ENVISION, the Uniting to Combat NTDs partnership, and other technical and partnership matters.

ENVISION Global Staffing

The ENVISION project currently includes 473 staff, which include 90 staff in the headquarters (HQ) offices (RTI and partners) and 383 field staff in 14 countries. ENVISION programmatic activities at country level are supported by a US-based country team composed of a technical, operations, and M&E focal point (Table 2). An updated organization chart of the ENVISION home office reflecting the most recent changes in structure is provided in Appendix A.

Table 2. ENVISION project focal points by country			
Country	Technical Focal Point	Operations Focal Point	M&E Focal Point
Benin	Jean Jacques Tougoue	Cheri Brown	Hannah Frawley
Cameroon	Jean Jacques Tougoue	Erika Walker	Brian Fuller
DRC	Jean Jacques Tougoue	Josh Sidwell	Brian Fuller
Ethiopia	Scott McPherson	Julie Abella	Hannah Frawley
Guinea	Daniel Cohn	Erika Walker	Brian Fuller
Haiti	Abdel Direny	Cheri Brown	Kalpna Bhandari
Indonesia	Molly Brady	Ruth Yohannes	Kalpna Bhandari
Mali	Abdel Direny	Erika Walker	Brian Fuller
Mozambique	Philip Downs	Ruth Yohannes	Hannah Frawley
Nepal	Delali Bonuedi	Julie Abella	Kalpna Bhandari
Nigeria	Alexis Serna	Erika Walker	Kalpna Bhandari
Senegal	Daniel Cohn	John Shutt	Brian Fuller
Tanzania	Delali Bonuedi	Cheri Brown	Hannah Frawley
Uganda	Alexis Serna	John Shutt	Hannah Frawley

Communications

RTI has continued to disseminate strategies, tools, and lessons learnt by ENVISION. Several ENVISION staff attended the **63rd ASTMH Annual Meeting** held in New Orleans in November 2014. One symposium (co-organized by RTI) and 12 abstracts were accepted and presented by ENVISION staff at the meeting. A list of presentations was provided in the Semi-Annual Report submitted to USAID in May 2015. All five symposia submitted for presentation at the 2015 ASTMH to be held in Philadelphia have been accepted. A further 19 abstracts were submitted by ENVISION and all were accepted for either poster or oral presentation.

Peer-reviewed publications During FY15, ENVISION staff published six peer-reviewed journal articles, as listed below.

Watmon B, Lakwo TL, **Onapa AW** (2014) Blinding onchocerciasis in Pader District, Northern Uganda. *Journal of Ophthalmology of Eastern Central and South Africa* 18: 19-26.

Ichimori K, King JD, Engels D, Yajima A, Mikhailov A, Lammie P and **Ottesen EA** (2014). Global Programme to Eliminate Lymphatic Filariasis: the processes underlying programme success. *PLoS Negl Trop Dis* 8: e3328.

Ramaiah KD and **Ottesen EA** (2014) Progress and impact of 13 years of the Global Programme to Eliminate Lymphatic Filariasis on reducing the burden of filarial disease. *PLoS Negl Trop Dis* 8: e3319.

Hooper PJ, Chu B, Mikhailov A, **Ottesen EA** and Bradley M (2014). Assessing progress in reducing the at-risk population after 13 Years of the Global Programme to Eliminate Lymphatic Filariasis. *PLoS Negl Trop Dis* 8: e3333.

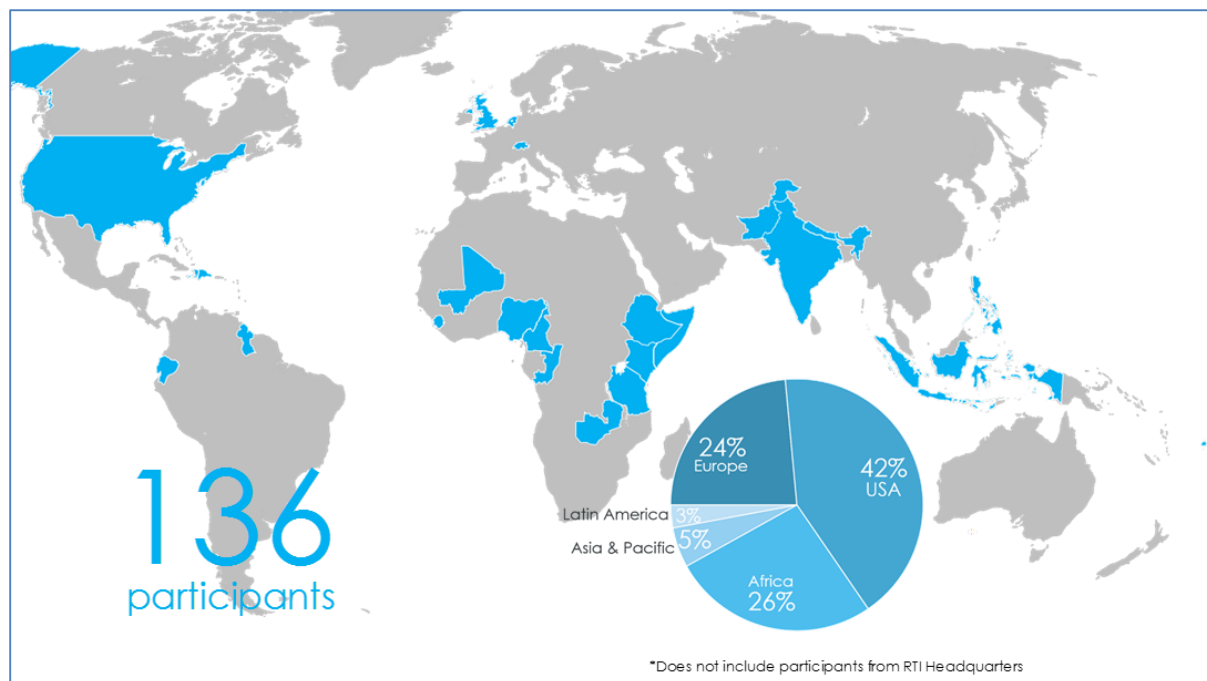
Flueckiger RM, Nikolay B, Gelderblom HC, Smith JL, Haddad D, Tack W, Hendricks G, Addiss D, Cano J, Hatcher DR, Hopkins A, Pullan RL, **Pavluck A, Ottesen EA** and Brooker SJ (2015) Integrating data and resources on Neglected Tropical Diseases for better planning: the NTD mapping tool (www.NTDmap.org). *PLoS Negl Trop Dis* 9: e0003400.

Hugues C Nana-Djeunga, Jules B Tchatchueng-Mbouguia, Jean G Bopda, Steve Mbickmen-Tchana, Annick Domo-Wafeu, Nathalie Elong, Julie Akame, **Ann Tarini, Yaobi Zhang**, Flobert Njiokou, Joseph Kamgno (2015). Mapping of Bancroftian Filariasis in Cameroon: Prospects for Elimination. *PLoS Neg Trop Dis* 10: e0004001

Dewi, R. M., Tuti, S., Ganefa, S., Anwar, C., Larasati, R., Ariyanti, E., ... Brady, M. (2015). Brugia RapidTM antibody responses in communities of Indonesia in relation to the results of “transmission assessment surveys” (TAS) for the lymphatic filariasis elimination program. *Parasites & Vectors*, 8, 499. <http://doi.org/10.1186/s13071-015-1093-x>

ENVISION Technical Webinar Series. From June-August 2015, RTI hosted three NTD technical webinars to help promote and disseminate NTD best practice across country programs and NGOs working in NTD control and elimination. The first focused on the topic of MDA coverage, providing perspectives on different ways of evaluating coverage and providing country experience from Tanzania. The second included presentations from WHO on completing the Joint Application Package for NTDs and from Nigeria on their experience using the TIPAC, and the WHO Integrated NTD Database to complete the Joint Application. The third webinar shared information and recommendation from WHO on how to prepare for and address serious adverse events (SAEs) which may occur during MDA campaigns.

Figure 3. Global participation in the ENVISION NTD Technical Webinars in FY15



On average, each webinar attracted 50 participants from a multitude of countries (Figure 3). Online evaluations were completed by participants immediately following the webinars which were overwhelmingly positive. RTI has received several suggestions for topics and plans to continue to use this platform in FY16. Recordings of all webinars will continue to be available through the project website at www.ntdenvision.org/webinars.

ENVISION website and social media. RTI continued to expand its discussion on NTD control and elimination on social media, providing real time updates of important country program activities supported by ENVISION and bringing attention to critical issues facing NTD control programs. RTI now has 1,105 followers (individuals and institutions) for @RTIfightsNTDs, a 33% increase from the previous reporting period, and has put out over 2,500 tweets on NTD activities in countries supported by the ENVISION project. The ENVISION Project website www.NTDenvision.org saw an increase of 21% in page views over the previous year, with over 26,622 pages viewed during FY15; the ENVISION Facebook page continues to catalogue the images of project activities and events over time.

NTD Advocacy. ENVISION staff are regularly engaged in NTD advocacy to increase general awareness and create a larger community of NTD advocates in the US and abroad. Activities include participating in the regular NTD Roundtable meetings (chaired by the Global Network for Neglected Tropical Diseases (GNNTD) and the Drugs for Neglected Diseases Initiative (DNDi)), developing advocacy materials on NTDs, and using these for briefing of US Congressional representatives and staffers, and contributing to advocacy letters and briefs advocating for NTD inclusion in the Sustainable Development Goals and broader post-2015 development agenda.

Data Management and Use

USAID's NTD database for data analysis and visualization. The USAID NTD Database officially went live in September 2013. The database is now being routinely used by USAID and ENVISION staff to submit, review, and provide feedback on USAID NTD project data. Since the official release, efforts are focused on expanding the system's reporting capabilities so that data can be easily accessed in report form for quick review and analysis.

The USAID NTD Database Report Builder was rolled out internally at RTI and within the USAID NTD team. Data collected through ENVISION, as well as the FHI 360-implemented END in Asia and END in Africa projects are now available in the form of pre-calculated, standardized indicators at district, regional, and national levels for all 25 countries within USAID's NTD program portfolio, as all of the countries' data were uploaded into the database by the end of the first quarter of this fiscal year. The USAID NTD Database is the result of the strong and continuous collaborative effort between national programs and ENVISION staff, led by the M&E team and in-county staff, to collect, validate, review, and manage national program data stored within this system.

Support for USAID's M&E system. During FY15, RTI began compiling proposed changes to USAID data capture forms, the Disease and Program Workbooks. This activity was undertaken so that ENVISION can make improvements based on user feedback, incorporate changes in the global guidelines (e.g., albendazole [ALB] 2x/year in LF-*Loa loa* co-endemic areas), and perhaps most importantly, make sure that the data capture tools are giving USAID and its NTD projects sufficient data that can be used to inform their work while not creating excessive burden on ENVISION staff responsible for data collection. Additionally, RTI considered the best approach to capture USAID-supported DSA results. During the second half of the year, RTI and USAID met to discuss proposed changes and determine the best updated approach to data capture. RTI and USAID agreed to remove some of the previously-required indicators that are not currently being used, in order to decrease the reporting burden on country teams. The details around the data and format for submission of USAID-supported DSA results are still under discussion.

Support USAID staff with agency reporting and data use. RTI's ENVISION M&E team provided ongoing technical assistance to the USAID NTD Team for the various reporting requirements for the agency, including portfolio review and other agency reports such as Global Health Initiative (GHI) projections. RTI also assisted USAID to compile data that was presented by USAID's Assistant Administrator for Global Health Ariel Pablos-Méndez at a House of Representatives hearing in April 2015. In addition, RTI analyzed data for USAID to share at key meetings with STH partners, including Partnership for Disease Control Initiatives (PDCI) and the Summit Session on School-Age Children Deworming; these data were able to push the agenda forward by urging NTD stakeholders to consider the funding and programmatic implications for STH programs as LF MDA scales down. This was a prime opportunity to demonstrate how data can be used to inform planning, policy, and funding allocations.

Review of USAID NTD project data. During the reporting period, RTI reviewed data for 25 countries supported by the USAID NTD projects, i.e., ENVISION, END in Africa and END in Asia. RTI liaised with

USAID, END in Africa, and END in Asia to provide consolidated feedback on FY13, FY14, and FY15 data for those projects. Through this effort, RTI aims to ensure that data across the 25 countries are high quality for appropriate interpretation and use, standardized to facilitate reporting, and accessible to the appropriate individuals for decision-making while respecting national ownership.

Cost Share

ENVISION remains committed to utilizing cost share in order to expand the reach and impact of USAID-funded activities for NTD control and elimination. Resources developed during FY15 include:

- **RTI** captured cost share generated at the district level through its grants to local non-governmental organizations (NGO) in **Indonesia**. Districts contributed to activities such as LF/STH coordination meetings; per diems and transportation costs for supervision; information, education, and communication (IEC) materials; and drug logistics.
- **The Carter Center** utilized funds from the Lions Club and other private donors to support onchocerciasis program activities in Uganda, and program management, supervision, and support services provided by TCC's home office in Atlanta.
- **HKI** continued to mobilize resources in **Mali** from the **END Fund** to conduct school and community mobilization, training, IEC material printing, community drug distributor incentives, drug delivery, supervision, and impact studies.
- **IMA** distributed 130,000 pairs of shoes in Haiti's Grand Anse department during LF MDA
- **Sightsavers** contributed staff time for project management support in Chad, Malawi, Zambia, and Zimbabwe. They also contributed labor costs for a Master Trainer to conduct training and assist with mapping preparations.

PROGRESS ACROSS DISEASES

Continuum of Progress toward NTD Elimination and Control

For all diseases, national NTD programs are working to map 100% of suspected endemic districts, and start MDA in 100% of districts requiring treatment. This is typically considered the “scale-up” phase of NTD program implementation. After successive years of MDA and implementation of complementary interventions, programs carry out disease-specific assessments to determine whether interventions can stop—the aim of this “scale-down” phase is to stop MDA in 100% of endemic districts and eventually validate disease elimination.

Figure 3 below (and the subsequent similar figures by NTD) use data from the USAID NTD database to illustrate progress toward NTD elimination or control for each of the ENVISION-supported countries by presenting the proportion of districts at each stage of the continuum at the time of this report. For example, Haiti has 2 NTDs targeted by the ENVISION project; 100% of districts in Haiti have been mapped for both NTDs and 100% of endemic districts have started MDA. Additionally, 32% of endemic districts have stopped MDA.

As Figure 4 demonstrates, the 14 countries supported by ENVISION are at various stages in progress towards NTD control and elimination. Baseline mapping is complete for all NTDs in the majority of ENVISION countries, with some gaps remaining for multiple diseases in DRC and Ethiopia, and one disease in Indonesia⁴. By the end of FY15, all countries have been mapped for all diseases, except where this was not possible due to factors outside of the project's control (e.g., insecurity in DRC, Ethiopia, and Mali; Ebola in Guinea) and where new information indicated that re-assessments are required to confirm endemicity (e.g., Indonesia). Illustrations of country specific progress in reaching NTD milestones are provided in Appendix B.

ENVISION's efforts are focused on supporting countries to scale up to obtain 100% geographic coverage of MDA for at-risk populations, with high program and epidemiological coverage. As of September 2015, national geographic scale has been reached for all diseases in Haiti, Nepal, and Uganda, while additional MDA scale-up is required for at least one disease in the other countries. ENVISION will continue to provide technical, operational, financial, and advocacy support for countries to ensure national scale is reached by 2016, in order to achieve the global goals for the NTDs targeted by ENVISION.

⁴ Three districts are to be remapped for LF in Indonesia.

Figure 4: Progress of ENVISION-supported countries in reaching NTD milestones

Data as of October 2015. Figure illustrates the proportion of districts in country having reached milestone.

Country	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)	Validation (LF, Trachoma)/ Verification (Oncho)
Nepal	100%	100%	49%	No
Uganda	100%	100%	35%	No
Haiti	100%	100%	32%	No
Mali	99%	99%	29%	No
Tanzania	100%	87%	22%	No
Benin	100%	73%	22%	No
Nigeria*	100%	77%	13%	No
Indonesia	100%	39%	10%	No
Cameroon	100%	89%	3%	No
Senegal	100%	99%	1%	No
Ethiopia**	89%	35%	1%	No
Mozambique	100%	93%	0%	No
Guinea	98%	65%	0%	No
DRC**	96%	2%	0%	No

*Reflect data in 9 USAID-supported states

**Reflect data received by ENVISION to date. Data will continue to be updated as receive additional information from non-USAID supported areas.

Due to the substantial investment made by national NTD programs, USAID, drug donation programs, and other partners to date, multiple ENVISION countries are starting to implement DSA to measure the impact of MDA and other interventions. Indeed, many countries have districts in the post-MDA surveillance phase for LF, onchocerciasis, and/or trachoma, including Benin, Cameroon, Haiti, Indonesia, Mali, Nepal, and Uganda. It is anticipated that many more districts will become eligible for DSA and move into a post-MDA surveillance phase in the coming months and years. Further details can be found in the disease-specific sections and country reports. Projection of continued progress beyond FY15 for ENVISION supported countries is provided in Table 3.

Table 3. Projected progress to LF and trachoma control and elimination

Phase 1	Mapping and situation analysis of disease; and providing capacity building to conduct MDA				
Phase 2	Any MDA, whether in scale up or successive years of MDA at national coverage				
Phase 3	Any DSA, with some districts qualified to stop MDA				
Phase 4	Post-MDA surveillance (entire country)				
Validation	Country is eligible to apply for WHO dossier validating elimination of disease, reaching global targets				
Country	Disease	2014	2016	2018	2020
Benin	LF	2,3	2,3	3	4
	Trachoma	1	2	2	3
Cameroon	LF	2,3	2,3	3	4
	Trachoma	2,3	2,3	3,4	4
DRC	LF	1	2	2	2,3
	Trachoma	1	2	2	2,3
Ethiopia	LF	2	2	2	3,4
	Trachoma	1	2	2,3	2,3
Guinea	LF	2	2	2	2,3
	Trachoma	1,2	1,2	2,3	3
Haiti	LF	2,3	2,3	4	4/ Validation
	Trachoma	N/A			
Indonesia	LF	1,2,3	2,3	2,3	2,3
	Trachoma	N/A			
Mali	LF	2,3	2,3	3	4
	Trachoma	2,3	3	4	Validation
Mozambique	LF	2	2,3	4	Validation
	Trachoma	1,2	2	3	4
Nepal	LF	2,3	2,3	3,4	4/Validation
	Trachoma	2,3	4	Validation	Validation
Nigeria	LF	1,2,3	2,3	2,3	4
	Trachoma	2,3	3	3	4
Senegal	LF	2,3	2	2,3	2,3
	Trachoma	1,2,3	2,3	2	4
Tanzania	LF	1,2	2,3	2,3,4	4/Validation
	Trachoma	1,2,3,4	2,3,4	2,3,4	3,4
Uganda	LF	2,3	2,3	4	Validation
	Trachoma	1,2,3	2,3	4	Validation

Updated August 2015

Districts and Persons Treated under ENVISION

In FY15, ENVISION supported MDA in 10 countries including assistance for strategic planning, advocacy, social mobilization, cascaded training, drug distribution, supervision, drug logistics, and M&E. Across all national NTD programs supported by ENVISION, partial data submitted to date shows that **in FY15 52 million people were treated with over 99 million treatments.**

Table 4 provides an overview of MDA results in FY15 by country; however, for many countries, final MDA data are still to be reported. Detail about each country's accomplishments can be found in its respective country report.

Table 4. ENVISION support for MDA in FY15

Country	# of districts targeted in FY15	# of districts treated (reported*)	# of persons targeted in FY15**	# of persons treated in FY15 (reported*)	# treatments provided in FY15 (reported*)
Benin	70	43	5,735,989	2,936,632	3,966,210
Cameroon	181	80	11,981,990	6,220,634	14,530,887
DRC	9	6	1,000,208	608,798	1,415,525
Ethiopia	108	56	8,124,198	3,417,242	5,811,533
Guinea	12	12	2,648,384	2,767,775	4,668,621
Haiti	56	53	2,643,640	2,584,305	5,429,094
Indonesia ⁵	50	-	13,515,141	0	0
Mali ⁶	63	-	11,401,607	0	0
Mozambique ⁷	8	-	652,192	0	0
Nepal	18	18	5,953,211	5,147,824	10,295,648
Nigeria	160	115	18,413,293	12,655,697	17,583,635
Senegal (ENVISION)	N/A	N/A	N/A	N/A	N/A
Tanzania	81	80	10,083,366	11,212,881	29,926,644
Uganda	72	42	11,576,090	4,988,428	6,062,738
Total	888	505	103,729,308	52,540,216	99,690,535
*Data are partial and reflect what have been submitted to date. Additional data are expected.					
**Targets reflect expected population to be treated and may not represent entire eligible population.					

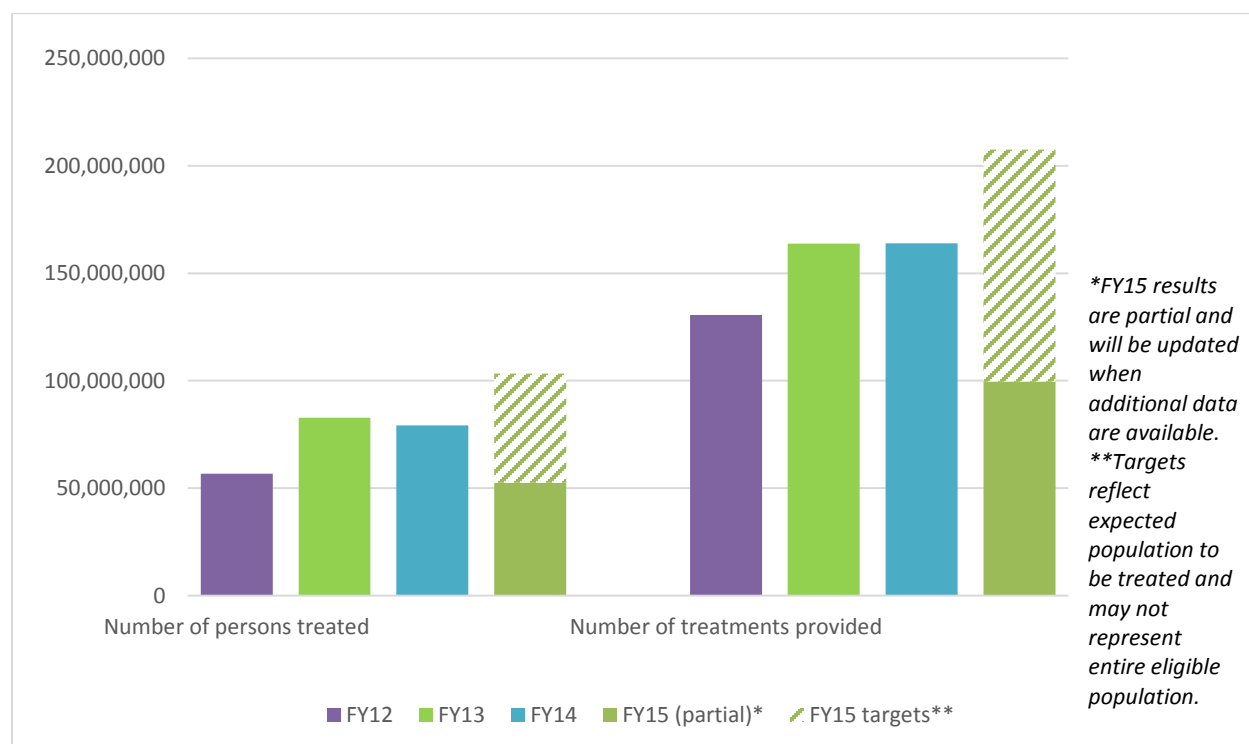
⁵ Treatment in Indonesia will take place in the last quarter of CY2015 and will be reported in the next SAR.

⁶ MDA took place in Mali and provisional data were available. Data through the USAID NTD M&E tools will be forthcoming.

⁷ Mozambique's MDA took place in the last quarter of FY15. Treatment data are forthcoming.

Since the beginning of ENVISION, over half a billion treatments (558 million) have been provided with USAID support. Indeed, as can be seen in Figure 5, there was nearly a 25% increase in treatments delivered between FY12 and FY14, representing scale-up in additional countries (i.e., Benin, Ethiopia, Mozambique, and Nigeria), as well as geographic scale-up within countries (e.g., Indonesia). Cameroon delivered the highest number of treatments of all the ENVISION countries from FY12-14, indicating the successful management of MDA for five NTDs in large populations.

Figure 5. Treatments delivered through ENVISION by fiscal year



Coverage Analysis

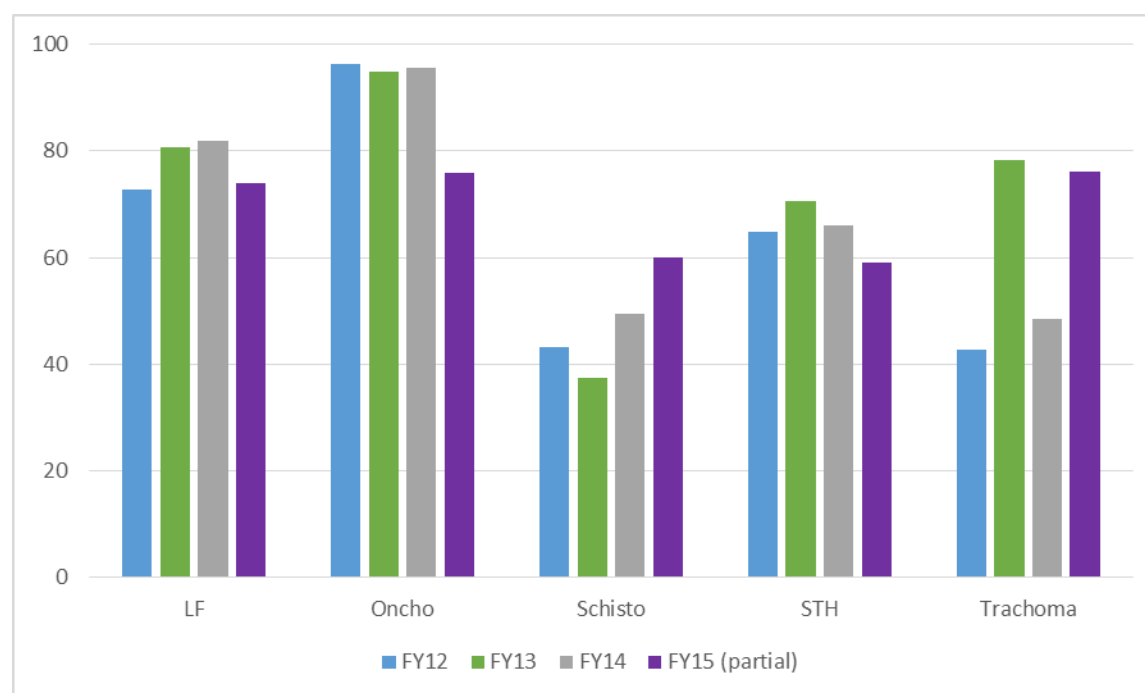
National programs determine the eligible population targeted for MDA either by the percentage of at-risk population estimated by national census projections, or through the pre-MDA registration process and removing those not eligible due to drug eligibility and dosing protocols. Over the life of ENVISION, **almost 3/4 of targeted districts have achieved sufficient program coverage**, as defined by proportion of eligible persons targeted with USAID support that were treated⁸. MDA coverage does vary by disease, as seen in Figure 6.

The majority of districts supported by USAID for onchocerciasis have achieved sufficient coverage. This reflects the longstanding engagement that onchocerciasis programs have had with communities, and the implementation of pre-MDA registration to identify the target population that is used for the

⁸ Program Coverage: # persons treated / # eligible persons targeted * 100; project goal is 80%.

denominator. The proportion of USAID-supported districts treated for LF achieving sufficient coverage has increased over the life of ENVISION, while the proportion of USAID-supported districts that have achieved sufficient program coverage for SCH, STH, and trachoma has fluctuated. SCH continues to have low coverage compared to other diseases. One of the reported reasons for low SCH coverage is the difficulty to accurately determine the eligible population targeted. In line with WHO guidance, when there is limited information available, some countries calculate the target population using a percentage of the total population, which may not accurately reflect the focal nature of the disease or eligible population. Additionally, SCH programs often use school-based platforms, but school-based programs are dependent on coordination with the education system in addition to the health system. When NTD activities are delayed, the MDA implementation timeline may no longer coincide with the school calendar, resulting in competing priorities as teachers focus on exams and/or implementing MDA when school attendance may be low (e.g., Benin in FY13). In addition, school-based platforms may not be effectively reaching children that do not attend school (e.g., Benin in FY14). Additional discussion regarding coverage results can be found in the following section, Progress by Disease.

Figure 6. Proportion of ENVISION-supported districts achieving sufficient program coverage



PROGRESS BY DISEASE

This section provides progress updates by disease for the 14 countries supported by ENVISION, with information on project activities and results, as well as disease-specific issues and challenges. Please refer to the FY15 Country Annual Reports for the latest activity updates on each ENVISION-supported country program.

Lymphatic Filariasis

USAID's goal for LF is to help countries achieve the World Health Assembly resolution to eliminate LF as a public health problem by 2020. The need to harmonize elimination guidance across NTDs and other diseases at WHO has led to uncertainties over the past year about what evidence countries will need to provide to prove elimination of LF. Standard operating procedures for "validation of elimination of LF as a public health problem" were approved by the April 2015 NTD-STAG as a first step on the pathway to eventual verification of interruption of transmission. This first step of validation will be based on information showing the delineation of endemicity in the country, data showing that each endemic implementation unit (IU) has passed three TASs, and information on estimated number of lymphedema and hydrocele cases, as well as availability and quality of basic morbidity services. The methodology and indicators needed for future verification interruption of transmission (as a second step) have not yet been developed, but would likely include antibody or xenomonitoring data.

Contributions to Global Policies and Guidelines

In Q1–Q2 (October 2014–March 2015), ENVISION provided support for WHO global guidelines around documenting elimination, specifically in developing and piloting the LF elimination dossier template. The LF dossier narrative template and Excel data annex, developed by ENVISION (Molly Brady) in coordination with WHO, was piloted in Bangladesh and Cambodia under the TAF, in collaboration with FHI 360. Based on feedback from the pilot, WHO prepared a final draft for inclusion in the standard operating procedures (SOPs) presented to the NTD-STAG in late April 2015. ENVISION (Molly Brady) also contributed to updating the new TAS eligibility and planning form and the Epidemiological Data Reporting Form to ensure harmonization among all WHO forms.

Global Leadership – LF

The Global Alliance for Elimination of LF had their biennial meeting in Addis Ababa, Ethiopia in December 2014, back-to-back with onchocerciasis, SCH, and STH coordination meetings. Lisa Rotondo, Eric Ottesen, Achille Kabore, and Scott McPherson attended on behalf of ENVISION. The alliance advocated for a prioritization of support to the ten countries that carry 82% of the geographic MDA coverage gap—among these are the ENVISION-supported countries of Nigeria, Indonesia, DRC, Ethiopia, and Tanzania. In addition, the meeting recommended that country programs, donors, and NGOs increase attention on activities focused on two specific aspects of LF morbidity management and disability prevention (MMDP)—basic lymphedema care and hydrocele surgery—in order to meet the

Global Programme to Eliminate Lymphatic Filariasis (GPELF) Strategic Plan 2010–2020 target of 100% geographic coverage of MMDP services.

ENVISION (Lisa Rotondo and Achille Kabore) participated in the Africa Regional Office (AFRO) RPRG meeting in Brazzaville, Republic of Congo, in February 2015, where they aided in review of AFRO LF mapping results from DRC, Gabon, Nigeria, and Zimbabwe, and TAS eligibility forms and TAS results from seven countries, including Mali, Guinea, and Uganda. Molly Brady participated in the Western Pacific Regional Office (WPRO) RPRG meeting in Davao City, Philippines in July 2015, where she met with End Neglected Tropical Diseases (END) in Asia project staff, USAID, and country NTD program managers to discuss the transition from END in Asia to ENVISION and support needed for FY16.

Katie Crowley attended TCC's first annual Hispaniola Program Review in February 2015. The Bill and Melinda Gates Foundation (BMGF) recently awarded the U.S. Centers for Disease Control and Prevention (CDC) Foundation and partners, TCC and PATH, \$29.9 million to eliminate malaria in Hispaniola. Representatives from the Haiti and Dominican Republic MOHs presented the status of the LF and malaria programs. Areas for coordination between the two programs were discussed, including current integrated TAS/malaria surveys ongoing in ENVISION-supported areas where ENVISION is funding TAS and CDC is funding the malaria rapid diagnostic testing component. ENVISION will continue to collaborate with TCC and CDC as appropriate.

Overview of LF Status in Countries Supported by ENVISION

Almost 287 million people—or approximately 26% of the global population at risk for LF—are at risk in ENVISION-supported countries (Table 5). Over 39 million people in the 14 ENVISION countries now live in areas where criteria for stopping MDA have been achieved, in large part due to assistance from USAID for MDA, sentinel site and spot-check surveys, and/or TAS. Over the next two years, these countries will see a dramatic shift toward stopping MDA (Figure 7), with approximately 236 districts projected to implement TAS1 in FY16 and 301 in FY17.

Table 5. LF endemicity status by country

Country	# Endemic districts	# Non-endemic districts	# Districts where MDA ever was implemented	# Districts where criteria for stopping MDA achieved	# Districts requiring mapping	# Persons at risk	# Persons living in areas where criteria for stopping MDA achieved
Benin	27	27	48	23	-	3,898,884	2,650,722
Cameroon	153	23	144	5	-	16,104,728	929,496
DRC [#]	225	261	6	-	33	33,030,895	-
Ethiopia	113	726	37	-	-	11,201,982	-
Guinea	24	14	10	-	-	8,573,287	-
Haiti	95	-	140	45	-	10,412,100	853,608
Indonesia	218	270	126	23	3	88,529,757	13,841,588
Mali	61	-	63	2	-	17,092,154	726,845
Mozambique	105	38	104	-	-	18,715,631	-
Nepal	41	14	61	20	-	15,981,384	9,808,207
Nigeria [#]	111	27	135	30	-	23,360,415	6,454,170
Senegal	50	26	50	-	-	8,258,869	-
Tanzania	97	63	103	6	-	26,487,420	1,430,660
Uganda	38	58	54	16	-	11,315,282	2,834,870
TOTAL	1,357	1,547	1,081	170	36	286,730,873	39,616,062

[#] Only includes ENVISION-supported states/areas.

Figure 7. Country progress through GPELF program steps

Data as of September 2015. Figure illustrates the proportion of districts in country having reached milestone.

Country	Mapping	MDA started	Under post-MDA, pre-validation surveillance	Fiscal year expect all districts to be under post-MDA, pre-validation surveillance*							
				By 15	16	17	18	19	20	21	22+
Mali	100%	100%	3%			X					
Nepal	100%	100%	33%				X				
Tanzania	100%	100%	6%				X				
Haiti	100%	100%	32%				X				
Uganda	100%	100%	30%					X			
Mozambique	100%	100%	0%					X			
Nigeria**	100%	95%	21%						X		
Ethiopia***	100%	33%	0%						X		
Benin	100%	96%	46%							X	
Cameroon	100%	91%	3%							X	
Senegal	100%	100%	0%							X	
Indonesia	99%	59%	10%								X
Guinea	100%	42%	0%								X
DRC***	94%	3%	0%								X

*Assumes all districts achieve at least five rounds of sufficient epidemiological coverage in remaining years, pass pre-TAS and TAS 1.

** Reflect data in 9 USAID-supported states

***Reflect data received by ENVISION to date. Data will continue to be updated as receive additional information from non-USAID supported areas.

Mapping

No ENVISION-supported countries have districts still requiring initial mapping for LF. Indonesia has finished mapping, and DRC (with support from the Liverpool School of Tropical Medicine Filariasis Programmes Support Unit [FPSU]) has finished data collection in 33 districts and is awaiting the final results. Remapping in areas where initial results were close to the 1% threshold or where second assessments did not confirm initial findings was finished in Tanzania in collaboration with the Task Force for Global Health (TFGH), and none of the 63 districts was found to be endemic. In Ethiopia, remapping in 45 districts is ongoing, and the LF technical working group will meet to reclassify districts after all results are received. In Indonesia, five districts that were remapped were found to be non-endemic, and remapping in one district was delayed until the end of October 2015 due to difficulties reaching small scattered islands during bad weather in September. Two other districts will be remapped in early FY16. Thus, **no ENVISION-supported country requires initial mapping for LF**, a remarkable achievement for MOHs and their stakeholders. In addition, through USAID support to remapping in FY15, over 19 million people who had originally been classified as at-risk have been determined to live in non-endemic areas and will not need MDA.

MDA

Support to LF MDA has continued to grow over the life of ENVISION, with 643 districts that were targeted to be treated in FY15 (Table 6). Likewise, while ENVISION treated 50 million people through LF MDA in FY12, this number had grown to over 60.5 million people by FY14. Geographic scale-down has been incremental in most countries (Table 6), with the exception of Benin, where almost half of the districts have stopped MDA, and Haiti, Nepal, and Uganda, which have all stopped MDA in at least 30% of endemic districts.

Table 6. Geographic scale-up/scale-down of LF MDA

Country	FY12		FY13		FY14		FY15 (partial)	
	Districts treated with USAID support	Districts treated with all support	Districts treated with USAID support	Districts treated with all support	Districts treated with USAID support	Districts treated with all support	Districts treated with USAID support	Districts treated with all support
Benin	0	0	25	25	25	25	6	6
Cameroon	133	133	134	134	134	134	68	68
DRC*	0	0	0	0	0	0	6	6
Ethiopia	0	0	0	0	0	13	17	17
Guinea	0	0	0	0	4	4	9	9
Haiti	106	137	106	126	97	112	53	53
Indonesia [#]	29	100	39	94	39	89	0	45
Mali	0	45	0	48	11	14	0	0
Mozambique	0	0	0	50	0	101	0	0
Nepal	46	46	56	56	41	41	18	41
Nigeria*	0	0	0	0	95	95	74	74
Senegal (PSSC II)	0	0	13	13	6	6	50	50
Tanzania (ENVISION only)**	52	98	53	99	0	0	53	100
Uganda ^{##}	45	45	44	44	52	52	3	3
TOTAL	411	604	470	689	504	686	357	472

FY15 results based on data submitted to date.

* Only includes ENVISION-supported areas.

[#] In Indonesia, districts treated with all support include data from two different MDA rounds, i.e., USAID-supported districts for 2015 MDA and Government of Indonesia-supported districts for 2014 MDA are reported in FY15, etc.

**MDA in Tanzania took place in October 2014, so will be captured in FY15 reporting.

^{##}FY13 MDA in Uganda was delayed until October/November 2013, so was captured in FY14 reporting; likewise for FY14 MDA and FY15 MDA.

PSSC II: USAID's Programme Santé-Santé Communautaire II

To be eligible for stopping MDA, districts must have implemented at least five rounds of MDA with $\geq 65\%$ coverage of the total population (epidemiological coverage). Most USAID-supported districts have achieved this criterion, with a greater percentage of districts achieving sufficient coverage in FY14 than in previous years in Benin, Haiti, Indonesia, Nepal, Senegal, and Tanzania (Table 7). Of the 10 countries reporting on FY15 MDA, 6 had at least 90% of ENVISION-supported districts that achieved effective coverage. In general, problems with achieving appropriate coverage are concentrated in urban populations (Benin and Nepal), implementation challenges (Guinea), problems with denominators (Nigeria), or in areas with previous adverse events and serious adverse events (SAEs). ENVISION is working with the TFGH to micro-map urban areas in Benin to determine how to focus MDA through implementing knowledge, attitude, and practices (KAP) surveys and epidemiological surveys. WHO has provided advice to Nepal and Indonesia regarding MDA in urban populations, which has allowed these countries to either move to TAS or implement sub-district MDA in urban areas. ENVISION is also working with MOHs and local communication and behavior change organizations to improve messaging around SAEs.

Table 7. ENVISION-supported districts achieving sufficient epidemiological coverage for LF MDA				
Country	FY12	FY13	FY14	FY15 (partial)**
Benin		96%	100%	33%
Cameroon	98%	91%	91%	95%
DRC				100%
Ethiopia				100%
Guinea*			25%	22%
Haiti	95%	99%	99%	91%
Indonesia	74%	90%	97%	
Mali			64%	
Mozambique				
Nepal	63%	78%	85%	72%
Nigeria#			81%	45%
Senegal	(not treated with ENVISION support between FY12 and FY15)			
Tanzania (ENVISION)	48%	75%		96%
Uganda	53%	58%	53%	100%

* Using census data as denominator in FY14. When coverage surveys were done in FY14, surveyed coverage was found to be $\geq 65\%$. Coverage surveys are ongoing for FY15 MDA.

** Based on data submitted to date.

Nigeria achieved at least 80% coverage of targeted population in 81% of USAID-supported districts in FY14 and in 45% in FY15. Targeted population was used a denominator for coverage for Nigeria because MDA only took place in areas of the district that had previous ivermectin (IVM) MDA for onchocerciasis (OV), due to concerns with risk of SAEs in potential loiasis co-endemic areas in the rest of the district.

The largest challenges to implementation of LF MDA stem from co-endemicity with other diseases. For example, throughout Africa, there are 1,104 districts in 28 countries that are potentially co-endemic for LF and onchocerciasis (OV). This has raised concerns about how to efficiently evaluate the success of each disease program independently, e.g., should an LF TAS be implemented to determine whether to stop LF MDA if the program knows OV MDA will need to continue? The WHO M&E working group recommended the following in February 2015:

- In areas with both LF and OV, the district should be the IU for MDA.
- Therapeutic or epidemiological coverage is equal to the number of individuals ingesting the PC medicines at IU level divided by the total population of an IU.
- Countries should, where feasible, align timing of impact assessments (TAS and epidemiological/entomological evaluations) to make coordinated stop-MDA decisions.
 - Where this is not possible, if an IU is eligible for TAS, TAS should be undertaken and LF MDA stopped if the evaluation unit (EU) passes. If OV MDA is still necessary, MDA should switch from ivermectin (IVM) + ALB to IVM only.

ENVISION will recommend that countries follow these recommendations, particularly with regard to scheduling of TAS.

In addition, Cameroon, DRC, and Nigeria all have districts that are potentially co-endemic with loiasis, resulting in challenges in terms of how to safely implement LF MDA in these areas. WHO recommends twice yearly ALB treatment and vector control activities (coordinated with malaria programs, if possible) in areas with any evidence of loiasis (measured as >0% by the Rapid Assessment Procedure for Loiasis tool). ENVISION supported a pilot of twice-annual ALB MDA in 10 of the 24 co-endemic districts in northern Cameroon (which also have insecticide-treated net coverage supported by the malaria program). However, when mini-TAS data from 5 of these districts showed no LF infection, treatment was stopped in all 10 districts. In addition, in Nigeria, mapping is ongoing to determine loiasis endemicity in IVM-naïve areas, with the plan to implement MDA with IVM and ALB throughout the district in non-loiasis districts and ALB monotherapy in the parts of districts confirmed co-endemic with loiasis.

Transmission assessment surveys

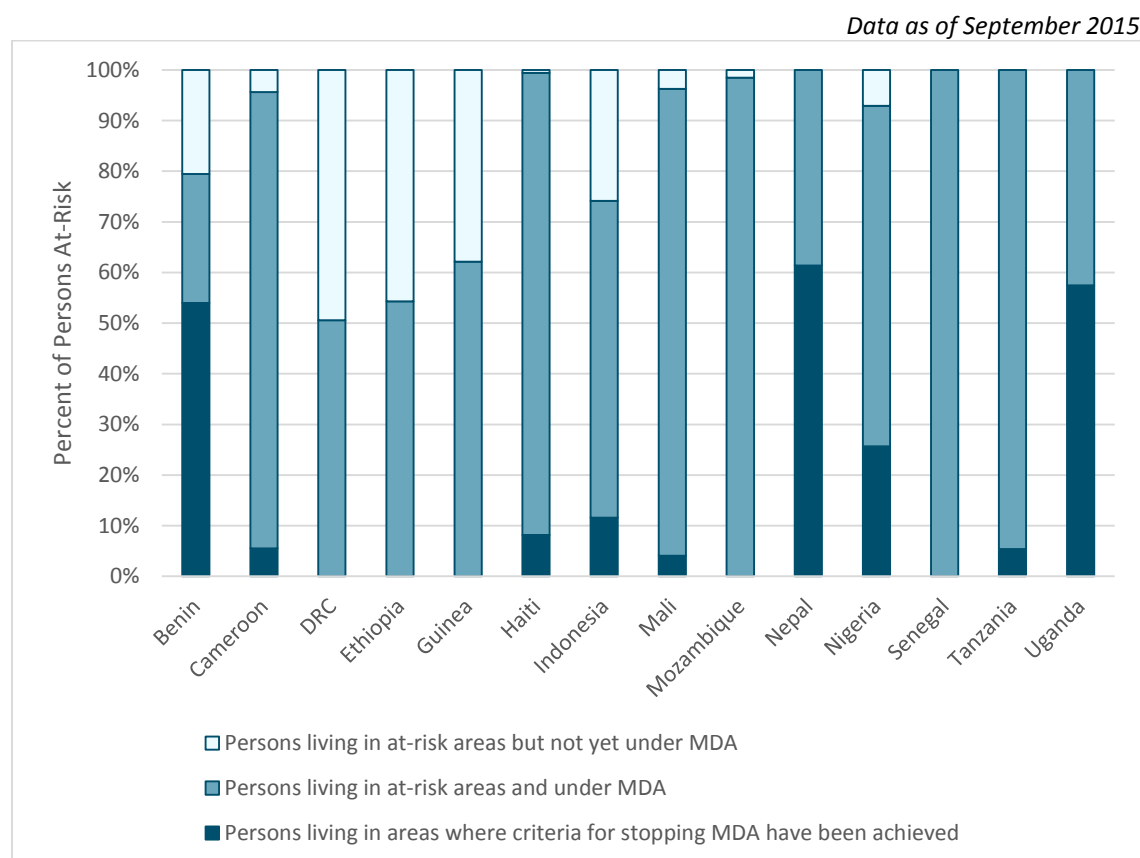
ENVISION has supported TAS since FY12, with 88% of EUs implementing TAS1 with USAID support passing, and 94% of EUs implementing TAS2 with USAID support passing. Almost all of the EUs that did not pass were from *Brugia*-endemic areas in Indonesia, where antibody tests are used, likely imposing a more conservative threshold for passing. TAS failures in Indonesia will be discussed in a special meeting in Jakarta in January 2016. Pre-TAS results in a variety of countries, including Benin, Tanzania, Haiti, and Nepal, have shown that districts with high baseline prevalence sometimes need more than five rounds of MDA, even with good coverage. These instances of pre-TAS “failure” have shown dramatic decreases from baseline prevalence after five years of effective MDA, but still show microfilaraemia (Mf) rates above 1% or antigen rates above 2%. This is not surprising—the number of rounds of MDA needed depends on baseline prevalence, vector, drugs used, as well as coverage.

The process of getting approval for TAS should be easier in FY16, with more WHO HQ engagement in managing the Filariasis Test Strip (FTS) supply and coordinating RPRG TAS eligibility responses. Alere has promised a cost of \$1.45 per test to RTI for any procurement, including for pre-TAS or remapping. ENVISION is coordinating with USAID, WHO, and FHI 360 to ensure adequate support to countries to obtain the necessary immunochromatographic tests (ICTs) or FTSs in the coming months.

Currently, **there are no ENVISION-supported countries that have districts eligible for TAS that are overdue**, i.e., are eligible for TAS but are continuing or have stopped MDA without having TAS planned for implementation. “Overdue” surveys do not include TASs that have been postponed due to changes in work plan timelines or due to insecurity issues that do not allow implementation of programmatic activities. In addition, all ENVISION countries have surveyors that have been trained in TAS (either at the MOH or universities). However, the increase in the number of surveys per year in the coming years will necessitate capacity building within countries—and potentially partnerships with academic institutions—to ensure all TASs can happen at appropriate times.

Figure 8 shows current progress toward elimination. In many ENVISION countries, the national programs are on track to stop MDA in all districts by 2020. However, there are still funding gaps in DRC and Indonesia that are preventing full geographic coverage with MDA.

Figure 8. Progress toward LF elimination in ENVISION-supported countries



* Nigeria only includes ENVISION-supported states.

Trachoma

USAID's goal for trachoma is to assist countries to achieve the World Health Assembly resolution 51.11 of eliminating trachoma as a public health problem by 2020. Currently WHO recommends that once elimination targets are achieved, countries carry out surveillance activities to detect and respond to resurgent TF and incident TT cases (but no more detail is available on this). Several countries have been in a holding pattern waiting for guidance (e.g., Morocco) and there is a need for evidence-based WHO requirements for post validation surveillance. According to WHO, SOPs for validating 'elimination [of trachoma] as a public health problem' need to be firmly established and standardized for:

- Preparation of, review of and feedback on dossiers requesting validation in a member state;
- Public acknowledgement by WHO of validation of a member state; and
- Activities in the post-validation phase in a member state (which may be intended to either sustain the disease burden under the targeted threshold or continue progress towards a more advanced goal).

In September 2014, the M&E subgroup of WHO's NTD-STAG developed draft SOPs for trachoma surveillance and impact surveys. ENVISION supported Nepal to put these SOPs into operation during the year, gathering useful information for WHO and contributing to the global trachoma policy dialogue. Following the above mentioned meeting, the WHO Trachoma Medical Officer (Anthony Solomon) prepared a document defining principles to regulate those SOPs for trachoma that was presented to the NTD-STAG in April 2015.

Unlike for LF, there is currently no WHO plan to pursue interruption of transmission of trachoma. Given that "elimination as a public health problem" does not mean interruption of transmission of trachoma's causative organism, validation is considered a reversible state. Therefore, the question of what, if any, post validation surveillance is required is a critical issue. (This issue will be explored fully during an October 2015 WHO post-validation surveillance meeting.)

Contributions to Global Policies and Guidelines

In FY15, ENVISION has participated more actively as a member of the Global Trachoma Mapping Project (GTMP) Advisory Committee. Lisa Rotondo and Alex Pavluck attended its March 1, 2015, meeting in Atlanta. They had the opportunity to advise on ENVISION-supported countries' progress in trachoma mapping, obstacles faced, innovations around mobile data capture, and partnerships with the U.K. Department for International Development (DFID)-funded project. Lisa also presented the GTMP to the annual Sightsavers Programme Review in Chichester, England in June 2015. The Harvard Business Case Study of the GTMP interviewed ENVISION staff to capture their contributions to the project during this reporting period.

Through collaboration with the Johns Hopkins University Dana Center for Preventive Ophthalmology (Sheila West), RTI supported the MOH in Nepal to collaborate on operational research informing future trachoma surveillance techniques, using multiple diagnostics and clinical examination.

Global Leadership – Trachoma

During the year, ENVISION staff contributed actively at many trachoma-related meetings. Lisa Rotondo, Achille Kabore, Alexis Serna, and Benjamin Nwobi participated at the March 2015 **TCC Trachoma Program review**; this meeting gave the opportunity to meet with MOHs (particularly from Nigeria, Uganda, and Ethiopia, i.e., key ENVISION countries) and participate in discussions about the application of the new WHO SOPs for trachoma surveillance and impact surveys. Alex Pavluck also participated in a strategic planning meeting for the **International Coalition for Trachoma Control (ICTC)**, informing the process that will guide this strategic coalition of NGOs as trachoma elimination targets grow near.

Alexis Serna and Benjamin Nwobi represented the project at the **ITI Zithromax® (ZTH) forecasting** meeting in Atlanta in March 2015. This gathering provided RTI and ITI staff the opportunity to review MOH forecasts for ZTH needs in detail, as well as discuss timing of impact surveys and projections for the coming year. Lisa Rotondo was an invited guest to the ITI TEC meeting in Atlanta in November 2014 as well as the June 2015 TEC meeting in Atlanta. She also was a member of the Technical Advisory Group assisting in the development of the SAFE costing tool in collaboration with the ICTC.

In April 2015, ENVISION (Lisa Rotondo) and USAID (Emily Wainwright and Angela Weaver) staff participated in an extraordinary meeting hosted by Pfizer in their New York headquarters to discuss **Zithromax allocations in the context of production delays**. The objectives of the meeting were to: 1) provide a forum for stakeholders to express their concerns and provide guidance for how best to deal with Zithromax® production delays; 2) translate this guidance into parameters to help the Trachoma Expert Committee (TEC) allocate the available Zithromax® equitably and efficiently in a resource-constrained environment, and; 3) identify complementary ways to use the full SAFE strategy to maintain momentum in the Global Programme drawing on the strengths of donors, implementing partners, and countries.

Several ENVISION staff (Lisa Rotondo, Jeremiah Ngondi, Jean Jacques Tougoue, Scott McPherson, and Kalpana Bhandari) participated in the series of trachoma meetings around the annual meeting of the **GET2020 Alliance**, including the Trachoma Scientific Informal Workshop (TSIW), the three-day GET2020 Alliance meeting, and the ICTC meeting. Lisa chaired a session on NGO collaboration in support of the GET Alliance, Jeremiah presented ENVISION supported research at the TSIW, and ENVISION's M&E tools were highlighted by Kalpana during the ICTC. ENVISION staff also participated in the ICTC meeting as part of the NNN in September 2015 in Abu Dhabi.

ENVISION and USAID staff participated in numerous planning calls and meetings for the celebration of the **500 millionth dose of Zithromax donated** by Pfizer for elimination of blinding trachoma. An ENVISION-supported area of Ethiopia was chosen for the celebration and ENVISION headquarters and Ethiopia-based staff participated in planning during this reporting period.

Overview of Trachoma Status in Countries Supported by ENVISION

Of the 14 ENVISION-supported countries, 12 are now known to be trachoma endemic: Benin, Cameroon, DRC, Ethiopia, Guinea, Mali, Mozambique, Nepal, Nigeria, Senegal, Tanzania, and Uganda. At the outset

of the ENVISION project, only Mali had been fully mapped and trachoma experts were still debating whether trachoma was endemic and needed mapping in Benin and DRC. Because of GTMP's unprecedented partnership, mapping is either underway or complete in all 12 countries, currently tallying a total of 777 endemic districts. The challenge before the MOHs and their stakeholders is clear and can be quantified, enabling partners to advocate for the necessary funding and resources (including the Pfizer-donated ZTH) to scale up implementation of the SAFE strategy. Table 8 provides a summary status of trachoma in the 12 ENVISION-supported, trachoma-endemic countries.

Country	# Endemic ⁹ districts	# Districts where criteria for stopping district-level MDA achieved	# Districts requiring mapping	# Persons at risk	# Persons living in areas where criteria for stopping district-level MDA achieved
Benin	8	-	-	1,173,099	-
Cameroon	15	6	-	1,618,938	733,741
DRC	17	-	16	3,304,101	-
Ethiopia	644	5	52	76,669,204	-
Guinea	18	-	4	2,799,370	-
Mali	18	38	-	200,183	11,373,812
Mozambique	43	16	-	2,967,051	
Nepal**	-	20	-	-	9,392,187
Nigeria	9	3	-	424,264	636,885
Senegal	26	1	-	3,647,366	-
Tanzania	25	33	-	4,731,625	8,517,771
Uganda	27	14	-	1,433,654	3,990,178
TOTAL	850	136	72	98,968,855	34,644,574

*N.B., during this reporting period, districts with <10% trachomatous inflammation–follicular (TF) that were treated according to guidelines are considered endemic. Districts with <10% TF that were not treated were not considered endemic.

** In Nepal, 1 district (Achham) is counted as 'endemic' and 'having achieved the criteria for stopping district-level MDA' as the district only needed sub-district level treatment. 2 districts where only targeted treatment was conducted are not included in any columns to be in line with USAID requirements.

Figure 9 illustrates overall progress toward the elimination of blindness due to trachoma in ENVISION supported countries.

⁹ "Endemic" for trachoma here is defined as TF >10% ; 5-9.9% TF at impact survey or 5-9.9% TF and plan to treat.

Figure 9. Progress in achieving milestones for trachoma¹⁰

Country	Mapping	MDA started*	Under post-MDA, pre-validation surveillance*	Fiscal year expect all districts to be under post-MDA, pre-validation surveillance**							
				By 15	16	17	18	19	20	21	22+
Nepal	100%	100%	100%		X						
Cameroon	100%	100%	29%		X						
Uganda	100%	100%	39%			X					
Mali	100%	100%	70%				X				
Tanzania	100%	94%	65%						X		
Mozambique	100%	60%	0%						X		
Nigeria***	100%	100%	43%							X	
Ethiopia****	94%	27%	1%							X	
Senegal	100%	94%	6%							X	
Benin	100%	0%	0%							X	
DRC****	97%	0%	0%							X	
Guinea	89%	100%	0%							X	

*Does not include districts between 5-9.9% TF at baseline in the denominator unless treatment has already taken place. The national program may decide to treat districts with baseline TF prevalence between 5-9.9%, which would increase the denominator.

**Assumes all districts that achieve the recommended rounds of sufficient epidemiological coverage in remaining years, have <5% TF following impact survey. The national program may decide to treat districts with baseline TF prevalence between 5-9.9%, which would postpone the projected year indicated here.

***Reflect data in 9 USAID-supported states

****Reflect data received by ENVISION to date. Data will continue to be updated as receive additional information from non-USAID supported areas.

¹⁰ Please note: these milestones are taking into account only the active trachoma (TF) component of trachoma elimination. TT data are not yet included in USAID's NTD M&E data capture system.

Mapping

A total of 41 districts were mapped for trachoma during the reporting period (29 of which were mapped with ENVISION support) in Benin, DRC, Mozambique, and Senegal, further closing the global trachoma mapping gap. All mapping conducted under ENVISION currently follows global standards designed and promoted under the WHO-led GTMP.

Trachoma mapping is expected to be complete by the end of FY16 in all ENVISION-supported countries (only excluding inaccessible areas of Ethiopia, Guinea, and Nigeria). Under the GTMP partnership, USAID is now recognized as a key funder next to DFID; RTI is similarly included amongst the GTMP Team (alongside ITI, London School of Hygiene and Tropical Medicine [LSHTM], Kilimanjaro Center for Community Ophthalmology, Sightsavers, and WHO). As the DFID-funded project comes to a close in December 2015, the only remaining gaps will be areas inaccessible due to insecurity or disease outbreaks (i.e., Ebola). As a final contribution to completion of global trachoma mapping, USAID and ENVISION should consider supporting remaining gaps in areas that become accessible following the end of the DFID-funded GTMP on a case-by-case basis.

MDA

During this reporting period, 6 countries conducted trachoma MDA with ENVISION support; 4 countries have reported data in a total of 55 districts, reaching more than 9 million people in Ethiopia, Tanzania, and Uganda. The mean program coverage with ENVISION support was noted to be 93%, 87%, 87%, and 75% respectively. Trachoma MDA for the other targeted countries in FY15 is planned to take place in the second half of the fiscal year. The table below illustrates mean program coverage for trachoma MDA by fiscal year in ENVISION-supported countries to date.

Table 9: Mean trachoma MDA program coverage with ENVISION support				
Country	FY12	FY13	FY14	FY15
Benin				N/A
Cameroon	98%	84%	88%	
DRC				N/A
Ethiopia		95%		93%
Guinea		81%	78%	87%
Mali				N/A
Mozambique		93%	71%	
Nepal	70%	82%	83%	N/A
Nigeria		92%		N/A
Senegal (ENVISION only)				N/A
Tanzania (ENVISION only)	66%	82%		87%
Uganda	69%	72%	72%	75%

It should be noted that while trachoma MDA is warranted in Benin and DRC, trachoma mapping is only recently complete in Benin and is ongoing in DRC. Both countries are planning to carry out Trachoma Action Plan workshops in FY15, convening local and international trachoma experts to assist in planning for implementation of the SAFE strategy, including their first applications to the ITI's Trachoma Expert Committee for ZTH. All trachoma-endemic ENVISION-supported countries needing MDA will be targeted in FY16, resources permitting.

During this reporting period, ZTH supply issues were noted due to production delays from Pfizer following an unexpected quality issue during production. It should be noted that Pfizer and ITI remain committed to providing the necessary drug to reach the global trachoma 2020 elimination goal. USAID-supported projects should support MOHs to ensure that scale-up and scale-down projections are provided to ITI as this will allow for the most efficient use of the valuable drug donation and for future forecasting. ENVISION should support MOHs to consolidate in-country stocks of ZTH and redistribute them to approved districts as appropriate.

Monitoring impact

TISs are conducted following a minimum number of years of implementation of the Surgery–Antibiotics–Facial cleanliness–Environmental improvements (SAFE) strategy, depending on baseline prevalence levels. The below table illustrates the number of districts that implemented TIS with ENVISION support, those with available results, and the number of districts having achieved criteria for stopping district-level MDA or stopping MDA. No countries' TIS are currently known to be overdue at this time. It is important to note that surgical interventions may still be necessary in order to achieve the ultimate intervention goal for trachomatous trichiasis as needed to achieve elimination. Similarly, facial cleanliness and environmental improvement activities are typically recommended for sustainable development.

Table 10. ENVISION-supported trachoma impact survey implementation

Country	FY12			FY13			FY14			FY15		
	# Implemented with USAID support	# with results available	# Passed	# Implemented with USAID support	# with results available	# Passed	# Implemented with USAID support	# with results available	# Passed	# Implemented with USAID support	# with results available	# Passed
Benin												
Cameroon							7	7	5			
DRC												
Ethiopia				41	41	0						
Guinea												
Mali												
Mozambique										16	0	0
Nepal	7	7	7	1	1	1	2	2	2	2	2	2
Nigeria							29	29	26			
Senegal							5	5	5	3	0	
Tanzania (ENVISION only)				8	8	6	19	19	12	21	21	17
Uganda				4	4	4	13	13	12	11	11	11
TOTAL	7	7	7	54	54	11	75	75	62	53	34	30

*In FY12-14, some countries may have considered districts as having passed the trachoma impact survey based on previous guidelines. Several of these districts may have fallen in the range of 5-9.9% TF and require one more round of antibiotic treatment.

Onchocerciasis

USAID's priority for OV is "Elimination of transmission where feasible, Control of blindness where not." This includes selected countries in WHO's Africa Region that are aiming for elimination by 2020. Most endemic countries aim to achieve elimination, but in practice, few have transitioned from a control to an elimination strategy. Because an elimination strategy is generally more extensive in scope and more intensive in approach, availability of funding can constitute an obstacle. In some areas of high transmission, vector-control measures may also be required to achieve elimination. Table 11 illustrates characteristic features of the approach linked to each goal. In practice, a given country's approach may combine features from each column.

Table 11. Control and elimination strategies for OV in sub-Saharan Africa		
	Control (of morbidity)	Elimination (of transmission)
Areas targeted for community treatment/ mass drug administration, in any part of district (determined through baseline mapping)	<u>Hyper-endemic areas:</u> -nodule carriers in rapid epidemiological assessment sample >39% <u>Meso-endemic areas:</u> -nodules 20%–39%, or -skin Mf prevalence >40% of total community population, or -community Mf load >5 Mf per skin snip (Mf/s)	Also include <u>hypo-endemic areas</u> (if any) ¹¹ : -nodules <20%, ¹² or -Mf prevalence 40% or less of total community population, or -Community Mf load of 5 Mf/s or less
IU for treatment	Focus (can encompass part or whole of one or more districts)	OV only: transmission zone Co-endemic with LF: district
Method for defining IU	Rapid epidemiological mapping of OV or rapid epidemiological assessment	Delineation mapping
Frequency of treatment	Once a year	Once a year; or Twice a year in areas that (i) can reach elimination with stepped-up treatment and (ii) are in early stages of intervention and could reduce the overall time-frame for elimination ¹³
Epidemiological coverage (goal)	≥65%	≥80%
Surveillance	Phase 1 – Intervention: Epidemiological	Phase 1 – Intervention: (a) ¹⁴ Epidemiological (b) ¹⁵ Epidemiological and entomological

¹¹ The upper end of hypo-endemicity is defined in relation to the bottom threshold for meso-endemicity. The lower end of hypo-endemicity (if this is anything other than >0% nodules or Mf prevalence) has not been defined. It should be noted that under a control program, hypo-endemic areas implement clinic-based treatment on a case-by-case basis.

¹² This method was used for baseline mapping in the past; it may no longer be used because nodules may no longer be apparent.

¹³ Presently Ethiopia and Uganda are the two ENVISION-supported countries that are adopting twice-a-year treatment strategies.

¹⁴ Assessment of decline in infection levels toward breakpoints.

¹⁵ Confirmation that the breakpoint has been reached and that treatment can be safely stopped.

Table 11. Control and elimination strategies for OV in sub-Saharan Africa		
	Control (of morbidity)	Elimination (of transmission)
		Phase 2 – Confirmation of elimination: epidemiological and entomological Phase 3– Post-elimination: epidemiological and entomological
Confirming interruption of transmission for stopping MDA ¹⁶	N/A	Use both: -Entomology: O-150 polymerase chain reaction (PCR) (PoolScreen) testing in black flies -Serology: Ov16 serology in children In locations that have previously used skin snip microscopy, it may be used alongside Ov16 serology in a transition to using Ov-16 serology only.
Confirming interruption of transmission at the end of post-treatment surveillance ¹⁷	N/A	-Use O-150 PCR (PoolScreen) testing in black flies -If results of O-150 PCR (PoolScreen) testing are at or near threshold, and thus not fully satisfactory, use Ov-16 serology testing in children for confirmation.

Contributions to Global Policies and Guidelines

In FY15, RTI contributed to USAID’s draft strategy paper for OV elimination. The paper focused on the issue of co-endemicity with LF and the approach to be taken when it is determined that treatment for one of the diseases may be stopped in a given area.

ENVISION has also supported structural innovations at country level. Uganda and Nigeria have established expert advisory committees for OV elimination, and Ethiopia is in the process of doing so. The countries’ committees use an “**onchocerciasis flag**,” a color-coded table showing the status of OV in the different foci, as a tool for tracking progress against the disease. The MOH makes the ultimate decisions on programmatic steps to be followed.

- In **Uganda**, the Uganda Onchocerciasis Elimination Expert Advisory Committee (UOEEAC), established in 2008, serves as an advisory committee to the MOH, providing recommendations regarding OV program activities. The UOEEAC meets annually, in August, and is tasked with the following: review programmatic activity reports from each elimination-targeted focus, advise the MOH on focus-specific M&E activities, recommend halting of interventions when appropriate, make any other recommendations on activities needed to reach the national 2020

¹⁶ Not finalized; drawn from the following draft document: WHO, *Guidelines for Verification of Elimination of Human Onchocerciasis: Criteria and Procedures* (June 2015).

¹⁷ Not finalized; drawn from the following draft document: WHO, *Guidelines for Verification of Elimination of Human Onchocerciasis: Criteria and Procedures* (June 2015).

OV-elimination goal. The UOEEAC's key tool is the "**onchocerciasis flag**," a color-coded table with epidemiological and entomological data, indicating current status of OV in the different foci; the group has recommended updating the flag coloration to reflect a shift toward elimination as the national program's goal. Members include Tom Unnasch, University of South Florida, as Chair; NTD Control Program National Coordinator; National Onchocerciasis Control Program Manager; Program to Eliminate Lymphatic Filariasis Program Manager; representatives from implementing partners (RTI, Sightsavers, TCC), Mectizan Donation Program (MDP), Uganda Lions Club, and WHO; and international experts from the Bernhard-Nocht Institute and the WHO Onchocerciasis Control Program. RTI funds the meetings, and TCC and RTI/Uganda provide technical assistance.

- In **Nigeria**, the Minister of Health launched the National Onchocerciasis Elimination Committee on May 22, 2015, with the specific mandate to work toward the elimination of OV in Nigeria. The committee met recently to respond to pending issues such as delineation of OV-endemic local government areas and twice-a-year treatment among others. The African Programme for Onchocerciasis Control (APOC) and the MDP recommend adoption of a biannual treatment strategy to reduce the amount of time needed to stop transmission; this strategy has been adopted by numerous countries. However, the National NTD Steering Committee and the Federal Ministry of Health (FMOH) have not yet endorsed a revision of national NTD treatment guidelines to include a twice-a-year strategy and its drug-quantification implications; in addition, MDP has also not approved the requisite volume of drugs, should Nigeria adopt this strategy.
- In **Ethiopia**, the Ethiopia Onchocerciasis Elimination Expert Advisory Committee was formed to provide technical advice to the FMOH on OV elimination. The committee will be composed of national and international experts and MOH personnel from all endemic regions, and will review annual progress of the national elimination effort and update the "**onchocerciasis flag**," a table color-coded by focus, with epidemiological data according to the four stages of elimination (transmission ongoing, transmission suppressed, transmission interrupted, transmission eliminated) depicted in WHO's 2001 and 2013 guidelines. The committee will recommend altering interventions or halting interventions in a particular focus. The FMOH has established draft Ethiopian National Guidelines for Elimination of Onchocerciasis that are in the process of being finalized. ENVISION has a seat on the committee and provides technical/in-context advice as needed.

USAID/Washington staff, serving as advance reviewers of WHO's draft *Guidelines for Verification of Elimination of Human Onchocerciasis: Criteria and Procedures*, requested feedback on this document from RTI. Eric Ottesen, Achille Kabore, Philip Downs, Molly Brady, and Daniel Cohn met with USAID/Washington in July 2015 to provide feedback and suggestions for improvement.

Global Leadership – OV

During FY15, ENVISION staff contributed to several global and/or regional meetings at which OV was addressed:

- **APOC Joint Action Forum (JAF), Addis Ababa, Ethiopia, December 2014:** This meeting reviewed the accomplishments in OV control and elimination achieved with support from APOC and other partners, and discussed possibilities for an entity to succeed APOC when that program ends. Lisa Rotondo, Eric Ottesen, Achille Kabore, and Scott McPherson participated in this meeting.
- **TCC River Blindness Elimination Program Review, Atlanta, February 2015:** attended by Achille Kabore, Katie Crowley, Scott McPherson, and Alexis Serna.
- **WHO AFRO RPRG, Brazzaville, Republic of Congo, February 2015:** attended by Lisa Rotondo and Achille Kabore.
- **WHO AFRO, Stakeholders' Consultative Meeting on the New NTD Entity, Geneva, Switzerland, July 2015:** attended by Amy Doherty.

Overview of OV Status in ENVISION-supported Countries

Over 109 million people—or approximately 91% of the population at risk for OV in sub-Saharan Africa¹⁸—are in ENVISION-supported countries (Table 12).

¹⁸ Approximately 120 million people at risk in 2012.

Table 12. OV endemicity status by country

Country	# Endemic districts ¹⁹	# Non-endemic districts	# Districts where criteria for stopping MDA have been achieved	# Districts requiring mapping ²⁰	# Persons at risk	# Persons living in areas where criteria for stopping MDA have been achieved
Benin ²¹	51	26	0	0	6,417,654	0
Cameroon	111	70	0	0	10,969,775	0
DRC ²²	262	257	0	0	35,498,437	0
Ethiopia	179	660	0	0	15,630,764	0
Guinea	24	14	0	0	4,388,654	0
Mali	20	43	0	0	6,098,088	0
Mozambique	0	0	0	0	0	0
Nigeria	104	64	0	0	21,414,194	0
Senegal	8	68	0	0	382,446	0
Tanzania	23	143	0	0	5,538,509	0
Uganda ²³	22	76	14	0	2,776,586	2,096,427
TOTAL	804	1421	14	0	109,115,108	2,096,427

¹⁹ The definition of endemicity varies by country, but generally includes hyper- and meso-endemic areas.

²⁰ Does not include the delineation of hypo-endemic areas.

²¹ For Benin, the number of “persons at-risk” was determined using the national census projections. This figure is known to be inflated and will be updated after MDA registration has been conducted.

²² The number of districts shown here is 519; DRC’s MOH redistricted in September 2015, resulting in 520 districts overall.

²³ In Uganda, there is one district that has achieved the criteria to stop MDA in some foci only. The population in these areas is included in the # of persons living in areas where criteria for stopping MDA have been achieved, but the district is not yet considered as having achieved the criteria since other foci are still endemic.

Figure 10. Progress in reaching milestones for OV

Data as of September 2015.

Country	Mapping	MDA started	Under post-MDA, pre-verification surveillance	APOC's projections for year all districts will meet criteria for stopping MDA						
				By 2015	2016	2017	2018	2019	2020	2021+
Mali	100%	100%	0%		X					
Benin	100%	100%	0%			X				
Guinea	100%	100%	0%			X				
Senegal	100%	100%	0%			X				
Uganda	100%	100%	39%					X		
Tanzania	100%	100%	0%					X		
Mozambique²⁴	100%	*	*					X		
Cameroon	100%	100%	0%						X	
Nigeria²⁵	100%	100%	0%						X	
Ethiopia²⁶	100%	82%	0%						X	
DRC²⁷	100%	39%	0%							X

²⁴ Mozambique is considered to be hypo-endemic for OV; the treatment strategy in the context of OV elimination is under discussion.

²⁵ Reflects data in 9 USAID-supported states.

²⁶ Reflects data received by ENVISION to date. Data will continue to be updated as additional information are received from non-USAID supported areas.

²⁷ Reflects data received by ENVISION to date. Data will continue to be updated as additional information are received from non-USAID supported areas.

Mapping

All 11 OV-endemic countries supported by ENVISION have completed their mapping, as noted in Table 12.²⁸ It should be noted however, that this status does not include delineation of hypo-endemic areas.

In **DRC**, mapping of loiasis with verification of the presence of OV is underway in seven health zones of Equateur Province in coordination with APOC. The targeted health zones have never been treated with IVM, and the situation of loiasis is unknown. Specific information on loiasis is also needed to be able to plan for elimination of LF; WHO AFRO will support mapping of LF in these same health zones.

MDA

Most of the countries have also begun MDA in all endemic districts; the exceptions are Ethiopia, with 84% of endemic districts having started treatment, and Mozambique, which is considered hypo-endemic for the disease and is discussing its treatment strategy in the context of OV elimination (Figure 10).

The number of districts supported by ENVISION for OV MDA is provided in Table 13. Several USAID-supported countries are in the process of scaling up treatment:

- **Ethiopia** treated 37 districts with ENVISION support in 2015.
- **Guinea** treated an additional two districts with ENVISION support in 2015, for a total of six, even as the total number of districts treated with funding from all sources was reduced due to the Ebola epidemic.
- **Mali** treated 18 districts with ENVISION support in 2015, up from two the previous year. This constituted a return to full-scale intervention with ENVISION funding (after the suspension of USAID funding from FY12 to FY14).
- **Senegal** reached all 50 endemic districts in 2015, for the first time, with USAID funding. Treatment was conducted with support from USAID in FY13 (in eight districts) and in FY14 (in a single district), but the data collection tools did not allow for OV MDA data to be disaggregated from the LF MDA data. Thanks to the updating of the data collection tools early in FY15 with technical support from RTI, the FY15 OV data are disaggregated from the LF data.

²⁸ For DRC, this was reported in the February 2015 WHO/AFRO RPRG meeting.

Table 13. Geographic scale-up/scale-down of OV treatment

Country	FY12		FY13		FY14		FY15	
	Districts treated with USAID support	Districts treated with all support	Districts treated with USAID support	Districts treated with all support	Districts treated with USAID support	Districts treated with all support	Districts treated with USAID support	Districts treated with all support
Benin	.	.	51	51	51	51	31	31
Cameroon	110	110	111	111	111	111	29	29
DRC	.	.	.	.	.	.	6	6
Ethiopia	.	.	0	0	0	106	37	119
Guinea	0	24	0	20	4	24	6	6
Mali	0	18	0	18	2	4	0	0
Mozambique	.	.	0	0	0	0	0	0
Nigeria	.	.	106	106	106	106	73	73
Senegal (PSSC II)	.	.	0	0	0	0	8	8
Tanzania ²⁹	.	.	.	.	.	.	.	.
Uganda	21	27	23	26	25	25	20	20
TOTAL	131	179	291	332	299	427	210	292

To be eligible for stopping treatment, endemic districts (or foci, or transmission zones) must have implemented epidemiological surveys to determine remaining levels of infection in a sample of communities to assess the trend toward breakpoint levels, and epidemiological and entomological evaluations to assess residual infection and transmission levels throughout the area to confirm that these are below defined thresholds for elimination (WHO/APOC, *Conceptual and Operational Framework of Onchocerciasis Elimination with IVM Treatment*, 2010).

One ENVISION-supported country, Uganda, is scaling down treatment for OV in certain districts, even as it intensifies treatment in other parts of the country in an effort to achieve elimination.

Uganda has reached the stopping point for OV MDA in 39% (36) of its endemic districts. Uganda is also conducting post-treatment surveillance in part or all of two-thirds of the districts (24) that have stopped treatment. It should be noted that in a given district, treatment may be ongoing in certain foci while other foci within the same district are under surveillance.

Both Mali and Senegal are conducting evaluations to determine the status of OV in endemic areas, and these countries may be in a position to scale down treatment over the next couple of years. Continuing

²⁹ ENVISION-supported districts. Through 2014, treatment was conducted with USAID support through APOC in other districts of the country.

treatment for LF, which also involves distribution of IVM, may influence decisions about stopping treatment.

Over 2 million people in Uganda now live in areas where criteria for stopping MDA have been achieved—in large part due to continued assistance, first from the NTD Control Program and now from ENVISION, for MDA and post-MDA surveillance. Over the next two years, at least one more supported country (Mali) is likely to begin post-treatment surveillance.

Table 14. Percent of ENVISION-supported districts achieving at least 80% program coverage for OV MDA				
Country	FY12	FY13	FY14	FY15
Benin	.	96%	100%	32%
Cameroon	100%	99%	97%	97%
DRC	.	.	.	100%
Ethiopia	.	.	.	100%
Guinea	.	.	25%	33%
Mali	.	.	100%	.
Mozambique
Nigeria	.	93%	95%	58%
Senegal (PSSC II) ³⁰	.	.	.	13%
Tanzania
Uganda	76%	78%	92%	90%

The majority of districts have achieved sufficient coverage. Program coverage by country is included in Table 14 and epidemiological coverage is included in Table 15. Low coverage was due to the following:

- **Benin:** Data compilation and analysis are not yet final; 32% is based on data received. Reasons for the poor coverage are under close examination and will be reported in forthcoming SAR.
- **Guinea:** in FY15, four of the six districts targeted did not achieve sufficient epidemiological coverage. A key challenge noted during this MDA was the refusal by certain communities to adhere to treatment in the context of Ebola virus disease. These four districts were not able to develop an appropriate mechanism to address these refusals, which in a number of other districts were addressed through action by community and religious leaders and the administrative authorities. The MDA period, limited to five days, was not sufficient to allow these districts to reach all of the persons who, given a longer period, might have decided to accept the treatment.
- **Nigeria:** in FY15, as previously in FY13 and FY14, the country conducted community-directed treatment with IVM (CDTI) for OV in CDTI foci, which include hyper- and meso-endemic areas

³⁰ Supported by USAID through USAID/Senegal's PSSC II project.

only. In FY15, delivery of IVM was late, and as of early November 2015, the 2015 order of ALB has not yet arrived, putting OV treatment on hold in all areas that are co-endemic for LF.

- **Senegal:** in FY15, OV MDA suffered from an insufficient number of community relays, especially as the OV-endemic areas tend to be more difficult to access. The relays delivering treatment in these areas require logistical support for transport, which could not be provided with the limited budget available. Additionally, the health post head nurses (ICPs) in these areas did not receive a good orientation, and lacked a good understanding of treatment targets and strategies. Kédougou and Tambacounda Regions together account for a third of Senegal's territory, and their component districts are large in size; given the insufficient number of community relays, in some cases just one relay treated the entire village.

Table 15. Percent of ENVISION-supported districts achieving at least 65% epidemiological coverage for OV³¹

Country	FY12	FY13	FY14	FY15
Benin	.	96%	100%	45%
Cameroon	100%	100%	99%	97%
DRC	.	.	.	100%
Ethiopia	.	.	.	100%
Guinea	.	.	25%	33%
Mali	.	.	100%	.
Mozambique
Nigeria	.	9%	9%	67%
Senegal (PSSC II) ³²	.	.	.	13%
Tanzania
Uganda	81%	84%	91%	90%

Challenges to implementation of OV treatment include (1) determination of stopping of treatment, for either OV or LF, in areas that are co-endemic for both diseases; (2) delineating the (hypo-endemic) areas to which treatment may need to be extended to achieve elimination; and (3) co-endemicity with loiasis.

Cameroon, DRC, and Nigeria all have districts that are known or suspected to be co-endemic with loiasis, resulting in challenges with the safe implementation of OV treatment in these areas. In locations with high levels of loiasis (>30,000 Mf/milliliter blood), treatment with IVM can lead to the development of an encephalopathic syndrome, especially among populations receiving the drug for the first time. For those areas, The Mectizan® Expert Committee and The Technical Consultative Committee

³¹ The global target to achieve elimination is 80%. The 65% target, recommended for a control strategy, is presented here in line with current USAID target for control (see Country Work Plan guidance for the 65% target).

³² Supported by USAID through USAID/Senegal's PSSC II project.

(Recommendations for the treatment of Onchocerciasis with Mectizan® in areas co-endemic for Onchocerciasis and Loiasis, 2004) have provided recommended treatment strategies.³³

Drug Supply

In ENVISION-supported countries in Africa, OV is treated with IVM, donated by Merck and provided by the MDP in response to requests from national MOHs for the country as a whole (this may include both USAID- and non-USAID-supported areas). No shortages of drugs or delays in supply have been observed over the life of ENVISION, but it is important to continue to provide technical support and monitor closely to ensure that drug requests are completed, orders are processed, and shipments and reports are made on time. The RPRG is involved in reviewing these drug requests from endemic countries.

At present, the trend shows increasing IVM needs in ENVISION-supported countries because more countries are in the process of scaling up or maintaining rather than stopping treatment—and the population of supported countries is growing. In addition, two countries supported by ENVISION, Ethiopia and Uganda, are planning to implement twice-a-year treatment in certain areas, which will contribute to increased need for the drug.

APOC's Technical Consultative Committee (TCC) is represented in the RPRG, but for the time being most issues related to OV are addressed in APOC's other forums. At present the RPRG is not involved in taking decisions related to OV.

Assessments for OV

ENVISION has supported impact assessments for OV in six countries to date (Table 16). The results of these assessments have permitted some scale-down in Uganda, as noted above. Results of assessments conducted in Mali and Senegal are pending and will be considered in decisions as to whether treatment can be stopped in selected or all endemic districts in both countries. In practice, as noted above, the decision to stop treatment will take into account any ongoing treatment for LF. To our knowledge, all required assessments are being conducted in areas supported by ENVISION; i.e., none can be deemed overdue.

In Mali, two districts (Kita and Kolokani) that last treated with IVM in 2011, based on good LF TAS results, conducted an epidemiological assessment (Phase 1b) for OV in 2015, using skin snips with microscopy. The results of the assessments conducted in those two districts will assist in deciding whether to resume or formally stop treatment for OV.

³³ Available at <http://www.who.int/apoc/publications/englishmectccloarecs-june04.pdf>.

In Senegal, blackflies collected in Kédougou, Kolda, and Tambacounda regions as part of the entomological component in CY2014 were examined and tested with PCR for evidence of the *O. volvulus* parasite in the Multi-Disease Surveillance Centre laboratory in Ouagadougou, Burkina Faso, showing no positives. (The capture and testing were jointly funded by ENVISION and APOC.) A second round of blackfly captures is underway from August to November 2015 in the three regions (funded by APOC). The results of the epidemiological component conducted in CY2014 are available for Kédougou Region (jointly funded by ENVISION and CDC, with funds from USAID)—the component also incorporated a LF co-endemicity survey—and results are being analyzed for Kolda and Tambacounda regions (jointly funded by ENVISION and TFGH). Kédougou Region showed no ICT or skin-snip positives in two districts, while in the third district (Salémata), 3.4% (6/176) of participants were ICT-positive (village range: 1.9%–6.4%) and 0.7% (1/150) were skin snip-positive. In that third district, LF prevalence remained above the threshold for LF treatment (antigenaemia $\geq 1\%$), while across the three districts, Ov16 results suggested that OV transmission was still occurring in the last 10 years. The complete findings of the overall OV impact survey, expected before the end of 2015, will allow for informed decision making about the next steps for OV elimination in Senegal.

Table 16. Onchocerciasis impact surveys implemented with ENVISION support

Country	Survey	FY12		FY13		FY14		FY15	
		# Implemented with USAID support	# with results available	# Implemented with USAID support	# with results available	# Implemented with USAID support	# with results available	# Implemented with USAID support	# with results available
Benin	Epidemiological			10	10				
	Entomological								
Guinea	Epidemiological	28	28	8	8	14	14		
	Entomological								
Mali	Epidemiological							4	0
	Entomological					4	0		
Nigeria	Epidemiological					27	0		
	Entomological								
Senegal	Epidemiological					29	29		
	Entomological					20	20		
Uganda	Epidemiological			7	7				
	Entomological								
TOTAL	Epidemiological	28	28	25	25	70	43	4	0
	Entomological	0	0	0	0	24	20	0	0

Diagnostics and Methods

ENVISION supported two countries in incorporating innovative diagnostics and methods into surveys, in FY14–FY15.

- In **Senegal**, ENVISION and CDC jointly supported an OV epidemiological impact survey combined with an LF co-endemicity study in Kédougou Region, and ENVISION and TFGH jointly supported an OV epidemiological impact survey in Kolda and Tambacounda regions. Both sets of surveys incorporated a serology component, analyzing dried blood spots (DBS) for antibody reactions to Ov16 (OV) and Wb123 (LF) antigens, an indicator of exposure to each disease. The surveys in Kolda and Tambacounda regions were the first use of web-enabled Android smartphones and the TFGH LINKS mobile data collection and warehousing tool for an OV survey in any country; this enabled the registration of survey locations through the built-in global positioning system and linking of multiple questionnaires (participant identity and history, questions about symptoms and physical examination, skin snip and microscopy results, and serology) through scanning of unique quick-response codes.
- In **DRC**, LF baseline sentinel site surveys were conducted in Bandundu (eight sites) and Maniema (three sites) provinces using multiple diagnostics: nocturnal Mf microscopy, antigenaemia (ICT cards and FTS), and a serology antibody component (pairing analysis for Ov16 and Wb123, using point-of-care and DBS enzyme-linked immunosorbent assay [ELISA] tests). ENVISION supported the field implementation, with TFGH contributing diagnostic and lab materials (ICT, FTS, and DBS). The surveys were conducted in two steps: during the day, 300–500 individuals aged 1 year and up were tested with conventional antigens (ICT cards and FTS) as well as with point-of-care biplex antibody-based tests (using specific antigens Wb123 and Ov16). Individuals who tested positive with either ICT cards or FTS (353 in total) were invited to return at night for Mf night-blood tests. Preliminary results of the night-blood surveys show that antigenaemia was detected in 319 individuals from eight sites, with Mf being visualized in 138 of the 319 people (43.26%)—86 with *W. bancrofti*, 72 with *Mansonella perstans*, 7 with *Mansonella sterptocerca*, and 3 with *Loa*.³⁴ The only co-infections identified microscopically were between *W. bancrofti* and *M. perstans* (30 individuals or 34.9% of those with *W. bancrofti* Mf), but because the 41 other individuals with non-*W. bancrofti* Mf were also ICT and/or FTS-positive, it is likely that they, too, were co-infected because many individuals with *W. bancrofti* infection are amicrofilaremic. Final results will be available after the completion of the blood smear currently being cross checked at the CDC laboratory, USA.

³⁴ The survey was not aimed at finding loiasis; *L. loa* is typically diurnal, and visualizing it in nocturnal blood samples was an unexpected result.

Surveillance

Uganda is presently monitoring OV vectors with joint support from ENVISION and TCC. This includes surveillance to determine infection and PCR test preparations to determine vector infectivity, with some districts implementing monthly entomological surveys. The latter include fly-catching and crab-trapping. Prevalence of onchocercal nodules and microfilaridermia, via skin-skips, is also monitored.

Schistosomiasis

USAID's goal for SCH is a control strategy. ENVISION promotes co-implementation of SCH MDA with other drug packages— in particular the co-administration of praziquantel (PZQ) with ALB for STH to efficiently reach targeted populations in SCH/STH co-endemic districts—and encourages close collaboration and synergies with water, sanitation and hygiene (WASH) projects implementing in ENVISION-supported countries.

Contributions to Global Policy Dialogue

The first meeting of the Global Schistosomiasis Alliance (GSA) was held in September 2015 in Cotonou, Benin. The meeting provided an opportunity for countries with advanced program implementation to share their experience with the others. Several endemic countries contributed, including Uganda, Tanzania, Mozambique, and Nigeria. ENVISION Senior Manager Achille Kabore co-chaired the meeting and highlighted the need to scale up PZQ treatments to reach the people in need, especially out-of-school children and the adults in highly endemic districts. He also brought up the need to strengthen health education and communication to support the control of SCH and STH. The GSA recognizes that control of SCH and STH go hand in hand, working together to support the achievement of the 2020 NTD road map target to reach at least 75% of SAC with regular treatment with anthelmintics. The GSA will work closely with the STH community to achieve this joint target. The STH coalition was repeatedly called the twin brother of the GSA. The GSA plans to support the development of a database for SCH and will be collaborating with WHO on the database build-up and mechanisms for data sharing. The GSA should work to review the need and facilitate the development of an SCH-specific database if identified as a priority. It can also work to review the processes that different countries use for data flow from the field back to the central level for reporting purposes. The GSA encourages countries to include additional control measures (snail control) whenever feasible. The GSA recommended that countries develop an SCH-specific action plan that could be presented to potential funders and SCH stakeholders. The SCH action plan could be a stand-alone document or a section of the national country master plan. Ethiopia has already developed an SCH action plan document that could serve as a model to other countries

Global Leadership – SCH

Following the third WHO AFRO RPRG meeting in Cotonou, Benin in September 2015, Achille Kabore served as the co-Chair of the GSA meeting. (Dr. Kabore is currently serving as the co-Chair of the GSA's Implementation Working Group). Whereas the circulating cathodic antigen (CCA) test has been recommended as a strong and sensitive mapping and disease-specific assessment tool for intestinal SCH, the RPRG suggested that additional studies be conducted to better understand the correlation between the CCA test and the Kato Katz technique. Such correlation will be critical for operationalizing CCA tests for mapping and sentinel site surveys. Another recommendation from the meeting was that each SCH endemic countries develop a SCH Action Plan, following the example of the Ethiopia SCH Action Plan.

Overview of SCH Status in ENVISION-supported Countries

SCH represents the PC disease in Africa with both the highest disease burden and closest association with rural poverty. It also represents a major challenge for agricultural and irrigation schemes for development in sub-Saharan Africa, in particular. One big challenge in terms of MDA is that four of the ENVISION-supported countries (Tanzania, Ethiopia, DRC, and Nigeria) account for almost 70% of the SCH burden worldwide; therefore, there is a need to scale up drastically to reach the targeted population.

Across ENVISION-supported countries, 1,583 districts, inhabited by over 240 million people, are endemic for SCH (Table 17). In DRC, mapping is ongoing in 33 districts with support from WHO AFRO, and there are 199 districts that still need SCH mapping in Ethiopia. In total, mapping is still needed in 232 districts to complete the epidemiological map for SCH in the ENVISION-supported countries.

Disease status as of September 2015

Country	# Endemic districts	# Non-endemic districts	# Districts requiring mapping	# Persons at risk
Benin	76	1	0	10,694,986
Cameroon	132	49	0	18,053,983
DRC	373	113	33	58,888,771
Ethiopia	300	340	199	32,774,285
Guinea	34	4	0	12,105,177
Indonesia	2	0	0	40,500
Mali	59	0	0	17,735,998
Mozambique	142	0	0	25,727,911
Nigeria	168	0	0	2,024,088
Senegal	60	16	0	9,441,161
Tanzania	166	0	0	47,312,622
Uganda*	73	39	0	7,815,550
TOTAL	1,585	562	232	242,615,031

*Population at-risk for SCH in one district in Uganda is currently unknown because MDA has not yet begun in that district.

Figure 11: Progress in reaching milestones for SCH

Country	Mapping	MDA started
Indonesia	100%	100%
Uganda	100%	100%
Mali*	100%	97%
Senegal	100%	97%
Mozambique	100%	89%
Tanzania	100%	81%
Cameroon*	100%	61%
Benin	100%	41%
Nigeria**	100%	35%
Ethiopia***	76%	30%
Guinea	100%	29%
DRC***	94%	0%

*Cameroon and Mali: not 100% geographic coverage in low endemicity areas

** Reflect data in 9 USAID-supported states

***Reflect data received by ENVISION to date. Data will continue to be updated as receive additional information from non-USAID supported areas.

Mapping

Mapping for SCH is complete for the ENVISION-supported countries except for DRC and Ethiopia, where mapping is underway (Table 17). In DRC, the mapping in an urban setting (Kinshasa) was technically challenging and inadequately executed in FY14. The WHO RPRG did not approve the results of the mapping. With support from the AFRO mapping project, Kinshasa is currently being remapped. All 10 SCH evaluation surveys planned in Uganda were conducted in FY15. However, Tanzania was not able to implement the SCH sentinel site surveys that were planned in 24 districts. With the availability of the CCA tests—proven to be more sensitive compared with the Kato Katz technique—the WHO RPRG has recommended that countries in the WHO AFRO region use the CCA tests for the mapping of intestinal SCH and for the SCH sentinel site surveys, especially in low-endemic areas.

MDA

Most SCH MDA are school based and are implemented to coincide with the closure of the school year. As a result, many countries may still be under treatment or may not have compiled and finalized all the reports by the end of September 2015. Innovative strategies, including running concomitant school-based and community-based MDAs, or getting non-enrolled school-age children (SAC) to attend MDA in schools, are implemented in countries where school enrollment is low in an effort to reach most of the out-of-school children (Benin and Mali).

Most countries continued work this year to bring the SCH programs to scale. Benin implemented SCH MDA in 15 additional districts. In DRC, SCH MDA started in the ENVISION-supported districts for the first time in FY15. Ethiopia has launched its MDA for SCH in 89 districts with non-USAID funding. Nigeria reached full geographical coverage, implementing SCH in all the SCH-endemic districts.

In Nigeria, SCH treatment plans have been developed to include SCH MDA as part of the MDA package in those respective local government areas. Following recent technical meetings supported by ENVISION, Senegal is changing the MDA strategy to achieve 100% geographic coverage starting in FY16. Guinea has been confronted with successive issues that hampered the rollout of SCH MDA: the Ebola epidemic in FY14 and FY15 still carries fears that SAEs due to PZQ could be mistaken for Ebola symptoms, and this was the main concern that prevented the national program from implementing SCH MDA. The Ebola epidemic is being controlled, and it is anticipated that SCH MDA will be feasible in the south and eastern parts of the country because the Ebola epidemic has shifted toward the western departments of the country where few incident cases have been reported for the past six months.

Table 18 provides a historical perspective of ENVISION support for SCH MDA since the start of the project. Technical, operational, and financial support to the endemic countries has been consistent since the beginning of ENVISION. ENVISION staff provide technical assistance to countries to host technical meetings to discuss SCH programmatic issues, including frequency of treatments and impact assessments. Mali, Senegal, and Cameroon have consequently aligned their MDA strategies with WHO guidelines. The ENVISION team provided logistical and technical support to have PZQ procured and shipped by World Vision to DRC to urgently solve the unavailability of PZQ due to a fire-damaged drug storage facility in FY15.

Table 18. Number of persons targeted and treated for SCH with ENVISION support								
Country	FY12		FY13		FY14		FY15*	
	# Persons Targeted	# Persons Treated	# Persons Targeted	# Persons Treated	# Persons Targeted	# Persons Treated	# Persons Targeted	# Persons Treated
Benin	-	-	226,196	126,555	728,568	449,991	662,967	424,426
Cameroon	2,873,328	2,329,969	3,035,861	970,391	3,163,709	2,407,351	3,148,126	66,922
DRC	-	-	-	-	-	-	46,341	0
Ethiopia	-	-	-	-	-	-	0	0
Guinea	758,220	691,654	4,056,224	-	3,719,598	-	0	0
Mali	-	-	-	-	1,338,037	553,400	4,151,898	0
Nigeria	-	-	1,885,691	1,679,170	3,087,871	1,946,908	929,301	562,420
Senegal (PSSC II)	-	-	2,483,306	1,857,795	2,182,757	1,793,566	2,721,887	2,634,883
Tanzania (ENVISION only)	1,118,279	510,182	2,689,702	1,396,820	529,281	496,495	3,442,126	2,926,320
Uganda	2,403,586	1,547,456	1,820,743	885,930	3,631,006	2,740,796	1,896,185	6621,543
TOTAL	7,153,412	5,079,261	16,197,722	6,916,661	18,380,826	10,388,507	16,998,831	7,236,514

*FY15 data is partial; reported to date.

Across many ENVISION-supported countries, MDA coverage for SCH is of concern (Table 19). ENVISION is working with field staff and in-country partners to investigate and address this, where possible. In fact, various factors may be contributing to low coverage, including difficulty reaching the SAC who are not

enrolled in schools (e.g., in Benin and Mali). Post-MDA coverage data and results from KAP surveys are being used during program review meetings in Cameroon and Mali to highlight the weaknesses leading to low coverage rates—in terms of health communication and mobilization for MDAs—and to propose corrective measures. Other security challenges might still be a barrier for MDA in general in northern parts of Mali, Cameroon, and Nigeria.

In FY15, four out of the seven countries where SCH treatments were conducted reached 80% program coverage. Program coverage has significantly improved in Nigeria and Senegal. Nigeria has reached 100% for the number of districts achieving at least 75% epidemiological coverage in the country. Benin has a noticeable and impressive achievement with the scale-up of SCH MDA coverage from 19% in FY14 to 53% in FY15 (Table 19). More efforts are needed in Tanzania, Cameroon, and Uganda to scale up SCH interventions and to reach most of the SAC targeted for SCH MDA.

Together with USAID, ENVISION will organize and host a coverage review meeting to examine in close detail the SCH coverage issues (as in the approved ENVISION FY16 work plan).

Table 19: Mean program coverage for SCH in ENVISION-supported countries

Country	FY12	FY13	FY14	FY15
Benin*	.	57%	65%	71%
Cameroon	91%	97%	109%	112%
DRC	.	.	.	71%
Ethiopia	.	.	.	.
Guinea	91%	.	97%	79%
Haiti	90%	91%	90%	114%
Indonesia	86%	114%	103%	.
Mali	.	.	84%	.
Mozambique	.	.	.	.
Nepal	68%	76%	74%	73%
Nigeria	.	91%	85%	67%
Senegal (PSSC II)	.	88%	95%	94%
Tanzania (ENVISION only)	68%	71%	100%	
Uganda	79%	91%	87%	142%

**Four districts were treated in Benin in FY14 that had not yet been mapped, based on the MOH decision to treat similar ecologic areas. The total SAC population is assumed as the population at-risk and targeted, consistent with districts known to be endemic. FY15 mapping found all four districts endemic.*

Nigeria is taking a more open and flexible approach in terms of WHO guidelines for SCH MDA by implementing annual treatment with PZQ when prevalence is between 10% and 50%. Benin and Tanzania are implementing post-MDA coverage surveys to verify reported coverage, and thereby should have a better understanding of the accuracy of the denominator. The review and survey on IEC materials and health communication strategies in Benin have provided insights on how to improve social mobilization to reach more people in need of MDA, especially the out-of-school children in the communities. ENVISION has learned that the printed materials are less useful in the rural areas; a recommendation was made to use the town criers.

Drug Supply

In FY15, ENVISION worked to have drugs shipped from Guinea, which were unable to be administered due to the Ebola outbreak, to Uganda and Tanzania where additional PZQ stock was needed. Discussions are ongoing with WHO and the Schistosomiasis Control Initiative (SCI) to provide PZQ for Maniema Province in DRC, which is supported by ENVISION.

Soil-Transmitted Helminths

USAID's goal for STH control is "control in the context of an integrated NTD program". ENVISION works to reduce morbidity associated with STH infections [*Ascaris lumbricoides* (roundworm), *Trichuris trichiura* (whipworm), and hookworms] by reducing the intensity of infection and protect infected individuals from anemia and the detrimental impact of infection on child growth and development. This is specifically accomplished through treatment of at-risk populations with ALB or mebendazole (MEB) during integrated MDA campaigns following current WHO guidelines (Table 20).^{35, 36} Sustained control of STH also requires USAID collaboration and synergies with the WASH sector as well as the research community.

Table 20: Implementation guidelines for starting and stopping MDA for STH

Disease	Results of Baseline prevalence			Years of MDA	Results of Disease Survey Assessment				
	Low	Medium	High						
	Hypo	Meso	Hyper						
STH ³	<20%	≥20 <50%	≥50%	5-6 years	<2%	≥2 <10%	≥10 <20%	≥20 <50%	≥50%
	No MDA	MDA 1x per year	MDA 2x per year		Stop MDA	MDA 1x every 2 years	MDA 1x per year	MDA 1-2x per year	MDA 3x per year
		(pre-school age, SAC, and HRA)	(pre-school age, SAC, and HRA)			(pre-school age and SAC)	(pre-school age and SAC)	(pre-school age and SAC)	

Note: ALB 200 mg for children aged 12–23 months, 400 mg for children aged 2–5 years; MEB 500 mg for children aged ≥1 year where ALB is not provided.

HRA = high-risk adults

Contributions to Global Policy Dialogue

Arguably, the key elements to support local elimination of STH (low intensity of transmission, strong health systems, available delivery platforms, supportive household environments, and sufficient in-country funding) are not currently present in ENVISION-supported countries; therefore, annual or semi-annual treatment of pre-SAC and SAC in districts mapped to have any STH prevalence ≥20% continues to be recommended, and even expanded in certain countries to districts with <20% prevalence per government policy. Regardless, after more than 5–6 years of MDA with ALB/MBD, an increasing number of national programs are inclined to modify the treatment frequency for STH, based on results of sentinel site and spot-check data. This is particularly true in ENVISION supported countries where districts are stopping MDA for LF, or other platforms where ALB/MEB is co-administered. However, decisions to stop or start treatment need to be carefully weighed to ensure countries are adopting cost-effective strategies. We know for example, that ALB/MEB on STH prevalence will vary depending on

³⁵ *Eliminating soil-transmitted helminthiasis as a public health problem in children: Progress report 2001–2010 and strategic plan 2011–2020.* http://whqlibdoc.who.int/publications/2012/9789241503129_eng.pdf?ua=1

³⁶ WHA54.19 *Schistosomiasis and soil-transmitted helminth infections.* http://www.who.int/neglected_diseases/mediacentre/WHA_54.19_Eng.pdf

worm species and age groups; ALB is more effective against *Ascaris* than *Trichuris*; and hookworm infections are often more prevalent in adults than children if adults are not targeted during school-based MDA.

Global Leadership – STH

This year, ENVISION staff increased the project's ability to engage and contribute to global discussions on these types of STH related issues through more extensive analysis of program data; this has allowed USAID and partners to highlight at various global meetings the impending issues to STH control with the scale down of LF MDA platforms. ENVISION staff became more involved in the **STH Coalition**, including participation on quarter phone calls during FY15 and increased presence on various coalition working groups. ENVISION staff have been actively engaged in the **NNN – WASH working group** where ENVISION has been able to promote and direct NTD-WASH related activities and tools towards STH control initiatives. ENVISION is also engaging partners and countries to more carefully look at deworming delivery models, including future collaboration on operational research projects through **COR-NTD**.

Overview of STH Status in ENVISION-supported Countries

In FY15, distributions of ALB and MEB were targeted for STH in 11 ENVISION-supported countries (Benin, Cameroon, DRC, Guinea, Haiti, Indonesia, Mali, Nepal, Nigeria, Tanzania, Uganda); to date, only 9 countries have reported any STH treatment figures. ENVISION support for STH control primarily facilitates the distribution of a single round of STH treatment (ALB or MEB) in a district, typically through co-administration with IVM, diethylcarbamazine (DEC), and/or PZQ. Provisionally, 13.6 million SAC have been reported treated with at least one round of ALB or MEB supported by ENVISION in FY15, or 43% of the total SAC population targeted. Although SAC are primarily targeted for STH, ENVISION targeted 92.1 million people to receive at least one dose of ALB through the LF MDA platform in the 11 countries targeting STH in FY15; in several countries such as Haiti, Nepal, and Indonesia, this includes pre-SAC and women of child-bearing age (in these instances, ALB is co-administered with DEC and given to individuals ≥ 2 years of age). In districts where prevalence of STH is $\geq 50\%$, government-supported school health programs or other NGO initiatives are expected to support at least one round of the biannual treatment strategy. In FY15, certain districts in Haiti (Grand Anse) and Tanzania received ENVISION support for two rounds of STH treatment. Compared to SCH coverage rates, which are primarily school-based, STH treatment coverage is slightly higher because many deworming treatments are distributed as part of the LF drug package, which is community based and therefore more likely to reach children not attending school. In other districts, STH coverage may be higher than LF coverage among SAC because of refusal by children to take IVM or DEC.

One of the major challenges to STH control is the lack of donated drugs for pre-SAC or HRA, particularly women of child-bearing age. Additionally, the lack of coordination in reporting treatments outside of the national NTD control programs makes it difficult for countries to truly assess coverage and progress toward achieving $\geq 75\%$ in both pre-SAC and SAC, or HRAs. Attempts by the Global NGO Deworming Inventory (www.deworminginventory.org) to ensure that NGO-administered deworming treatments are

accurately reflected in the WHO-managed PC databank will hopefully clarify some of the coverage gaps. This initiative, however, should not dissuade national NTD programs from ensuring that all STH treatments administered in their respective countries are first captured by the national program by improving in-country collaboration and data sharing with school health programs and alternative deworming platforms. In this regard, capacity building can be measured by identifying countries who successfully report the number of targeted and treated pre-SAC, SAC, and adults through the Joint Reporting Form and PC Epidemiological Data Reporting Form. Among the countries with national NTD programs supported by ENVISION that are targeting STH, all 12 countries have reported treatment figures for pre-SAC and SAC as recorded in the PC databank for 2014 (http://www.who.int/neglected_diseases/preventive_chemotherapy/sth/en/).

Figure 12. Progress in reaching milestones for STH

Country	Mapping	MDA started
Cameroon	100%	100%
Guinea	100%	100%
Haiti	100%	100%
Mali	100%	100%
Mozambique	100%	100%
Nepal	100%	100%
Senegal	100%	100%
Uganda	100%	100%
Nigeria*	100%	92%
Tanzania	100%	82%
Benin	100%	76%
Indonesia	100%	30%
Ethiopia**	76%	28%
DRC**	94%	2%

*Reflect data in 9 USAID-supported states

**Reflect data received by ENVISION to date. Data will continue to be updated as receive additional information from non-USAID supported areas.

Mapping

As Figure 12 reaffirms, ENVISION-supported countries have completed STH mapping, with the exception of DRC and Ethiopia. In FY15, Benin mapped 39 districts for STH through ENVISION. In FY16, DRC and Ethiopia will map any remaining STH gaps through other funding sources.

MDA

While most endemic districts have started at least one round of MDA for STH in the majority of ENVISION countries, very few countries have maintained 100% geographic coverage for pre-SAC and even SAC populations (Table 21). This reflects the challenges national programs have in obtaining quantities of drugs to treat pre-SAC, the fragmentation of partner support for MDA in certain countries, and the impact on STH of countries stopping MDA platforms for LF, OV, and trachoma.

Table 21: Status of STH MDA in ENVISION-supported districts, FY14–FY16			
STH Indicators	2014	2015	
	Treated with USAID support	Targeted with USAID support	Treated with USAID support (provisional)
# of countries	10	11	9
# of districts ¹	603	654	350
# of SAC for STH	25,101,992	31,973,221	13,602,108
# of people receiving ALB through LF MDA	59,976,356	92,152,503	35,539,029
# of districts that have achieved ≥75% coverage of mass chemotherapy for SAC (5–14 years) through school- or community-based MDA	448 (74.3%)		246 (70.3%)
# of countries achieving mean epidemiological coverage of SAC ≥75%	8 (80.0%)		5 (55.6%)

Table 22 shows that 9 of the 11 STH-targeted countries in FY15 have submitted STH data (data pending for Mali and Indonesia), including 55% of the districts targeted with USAID support. In the districts that reported, 13.6 million SAC were treated for STH (43% of all targeted treatments). Many countries target MDA between September and November, and therefore treatment reports are still pending.

Table 22: Mean epidemiological coverage of SAC with USAID support

Country	FY12	FY13	FY14	FY15
Benin ¹	.	57%	65%	71%
Cameroon	91%	97%	109%	112%
DRC	.	.	.	71%
Ethiopia	.	.	.	.
Guinea	91%	.	97%	79%
Haiti	90%	91%	90%	114%
Indonesia	86%	114%	103%	pending
Mali	.	.	84%	pending
Mozambique	.	.	.	.
Nepal	68%	76%	74%	73%
Nigeria ²	.	91%	85%	67%
Senegal (ENVISION) ³	.	-	-	-
Tanzania (ENVISION only)	68%	71%	100%	90%
Uganda ²	79%	91%	87%	142%

¹ Four districts were treated in Benin in FY14 that had not yet been mapped, based on MOH decision to treat similar ecologic areas. The total SAC population is assumed as the population at-risk and targeted, consistent with districts known to be endemic. FY15 mapping found all four districts endemic.

² Lower epidemiologic coverage related to delays and shortages of ALB sent to the country.

³ USAID support for treatments through other mechanisms besides ENVISION not included.

Two districts in Uganda in FY14 were not disaggregated by age. Epidemiologic coverage calculations for FY14 include data only for the 50 districts with age disaggregated data. In FY12, data was not disaggregated by age in three districts, so epidemiologic coverage calculations include data for only 53 of 56 districts treated. FY15 data only reflect data from two districts

Among the countries that were able to report STH treatments, 70.3% of all treated districts achieved a coverage rate of $\geq 75\%$ among SAC within the district, and five of the nine countries achieved a mean epidemiological coverage of $\geq 75\%$ in SAC, although reported epidemiological coverage reported by Uganda, Haiti, and Cameroon appear overestimated. Benin, DRC, Nepal, and Nigeria have not reached a mean epidemiologic coverage of $\geq 75\%$ in SAC according to provisional data (Table 22).

Table 23 shows the number of districts by country with prevalence of $\geq 20\%$ treated by ENVISION in FY14 and FY15 compared to all districts supported. Among the nine countries that reported STH MDA with ENVISION support, most have still not reported 100% geographical coverage of districts with $\geq 20\%$ prevalence. Geographic coverage varies depending on STH prevalence in districts, baseline mapping gaps, opportunities to integrate deworming as part of other drug distributions, whether drug distributions are school or community based, and whether the focus of interventions by the program includes all districts with STH prevalence of $\geq 20\%$.

Table 23: Number of STH-endemic districts treated by ENVISION

Country	# STH endemic districts (≥20%)	FY14			FY15 (provisional)		
		Districts targeted with USAID Support	Districts treated with USAID support	Districts treated with all support	Districts targeted with USAID Support	Districts treated with USAID support	Districts treated with all support
Benin	45	21	21	21	24	24	24
Cameroon	78	181	181	181	181	80	80
DRC	279	-	.	.	6	6	.
Ethiopia	312	-	-	-	-	-	88
Guinea	17	15	1	1	4	4	4
Haiti	140	97	97	112	56	53	53
Indonesia	514	39	39	101	50	0	90
Mali	63	15	11	14	63	0	.
Mozambique	134	-	-	93	-	-	0
Nepal	75	41	41	75	18	18	41
Nigeria	133	127	106	106	131	83	.
Senegal (ENVISION)	76	-	-	76	-	-	76
Tanzania (ENVISION only)	166	54	54	54	80	80	136
Uganda	112	52	52	52	41	2	2
TOTAL	2,144	642	603	886	654	350	594

Table 24 shows the number of SAC targeted and treated in FY14 and FY15 by country and the provisional percentage of people treated out of the number of people targeted. During FY15, provisionally 13.6 million SAC were treated for STH, primarily through the treatment of LF endemic areas with IVM and ALB. In certain circumstances, SAC were treated with ALB in OV-endemic areas by including ALB with IVM distributions, as well as in schools targeted for PZQ distributions for SCH and where ALB or MEB was also provided for STH. In a few districts, reports indicate that SAC were only treated with ALB or MEB. Over the last four years, ENVISION has been targeting on average approximately 29.4 million SAC per year for STH.

Table 24. Number of SAC targeted and treated with USAID support

Country	FY14		FY15 (provisional)			Comment
	# SAC Targeted	# SAC Treated	# SAC Targeted	# SAC Treated	% treated	
Benin	728,568	449,991	831,141	578,385	69.6%	
Cameroon	7,431,376	5,947,072	6,617,294	3,003,200	45.4%	Data pending
DRC	.	.	264,725	197,929	74.8%	
Ethiopia	0	0	0	0	-	
Guinea	1,463,322	222,148	268,989	218,958	81.4%	Reduction in the # SAC targeted in FY15 related to Ebola outbreak
Haiti	1,475,028	1,276,258	826,138	850,129	103%	Reduction in the # SAC targeted in FY15 related to fewer districts targeted for LF MDA
Indonesia	2,823,982	2,444,582	2,458,649	0	-	To be reported in FY16
Mali	560,280	372,882	2,596,418	0	-	Delay and shortages in ALB. Data pending
Mozambique	-	-	-	-	-	Not targeted by ENVISION
Nepal	4,077,509	3,019,859	2,055,346	1,421,829	69.2%	SAC treated during LF MDA. # SAC targeted by ENVISION reduced after increased government support
Nigeria	7,709,297	5,064,618	8,113,252	3,369,184	41.5%	Delay and shortages in ALB affected coverage rates
Senegal (ENVISION)	-	-	-	-	-	Not targeted by ENVISION
Tanzania (ENVISION only)	3,020,745	2,443,709	4,038,187	3,608,946	89.4%	
Uganda	4,821,545	3,860,873	3,903,082	353,548	9.1%	Pending results from Oct MDA. # SAC targeted by ENVISION reduced after exchange of districts with SCI and districts no longer targeted for LF MDA
TOTAL	34,111,652	25,101,992	31,973,221	13,602,108	42.54%	

Sentinel site and spot check surveys

Assessing STH morbidity is not part of the WHO guidelines for M&E; consequently, data on morbidity associated with STH is currently not collected by the ENVISION project. The project, however, monitors and evaluates the impact of multiple rounds of anthelmintic drugs on reducing the intensity of any STH infection. STH sentinel site surveys supported by ENVISION are frequently conducted as part of SCH survey work, although STH surveys have also been integrated into other DSAs. In general, one sentinel site is selected for every 200,000–300,000 children targeted, and 50 children are examined in each

selected school. The Kato Katz technique was primarily used to examine a known amount of fecal material through microscopy. Egg counts provide an indirect measure of burden and intensity of infection.

In FY15, ENVISION supported 42 districts with STH sentinel site or STH evaluations in Tanzania, Uganda, Mali, and DRC. Among the districts to have completed surveys in the first half of FY15, results are still pending from 4 districts in Mali, and results from 10 districts in Uganda suggest that in 5 districts, the frequency of MDA can be decreased; in 4 districts, MDA should continue at the same frequency; and in 1 district, the program has recommended stopping STH MDA and starting surveillance (Table 25).

Table 25. FY15 districts targeted for STH surveys				
Country	Survey	FY15		
		# districts targeted	# districts with surveys completed	Recommendations
Mali	Evaluation	4	4	Pending Final MoH Report
Tanzania (ENVISION only)	Sentinel site	28	0	Pending Final MoH Report
Uganda	Evaluation	10	10	Decrease frequency of MDA (5 districts) Continue MDA same frequency (4 districts) Stop MDA, start surveillance (1 district)
TOTAL	Sentinel site	28	0	
	Evaluation	14	14	

ENVISION'S GLOBAL LEADERSHIP

Policy dialogue takes place at many different levels—global, regional, national, and local levels. ENVISION plays an active role at each level helping to translate our real-world experience to inform policy discussions and decisions. USAID's ENVISION project is globally the largest single platform of NTD program implementation, and as such, its experience is called on first to formulate, and then evaluate global guidelines; define best practices; set control and elimination strategies; and determine the challenges remaining to be addressed. ENVISION staff work closely with USAID to provide technical leadership to WHO, the donor community, and the MOHs by actively participating in global and national forums as well as through developing specific program tools and strategic approaches.

Since operational NTD programs are comparatively new public health ventures, as national programs mature, countries repeatedly face new challenges. The role of M&E of program activities becomes increasingly important, and the tools to track progress or identify program weak spots must be developed or refined and improved to be able to inform policy development. Then, when the decision to stop components of programs after they have achieved success must be made, national programs seek guidance from global policy that can only be developed on the basis of available experience. For all of these reasons, USAID and ENVISION have become essential collaborators with WHO in designing, effecting, and troubleshooting the NTD programs globally, first at meetings and then on-the-ground in-country.

Participation in Global Forums

A list of global meetings that ENVISION staff participated in is outlined in Table 26. ENVISION staff's contributions to NTD technical working groups is summarized in Table 27.

Table 26. Participation in WHO's global technical meetings

Name of Working Group or Sub-Working Group	Purpose	RTI contributions	ENVISION Staff
WHO/NTD-STAG Working Group on Drug Access	Coordinate PZQ procurement with other partners	RTI presents its PZQ distribution plan (by country, year, and quantity of drugs), including a new forecasting and alert system. RTI helps countries transition to new WHO-centralized procurement system by providing information and TA in completing forms. RTI/ENVISION influences other partners to demonstrate same level of transparency and leads coordinated examination of plans to avoid areas of duplication.	Amy Doherty
WHO Regional Program Review Groups (AFRO, Southeast Asia Regional Office [SEARO], WPRO, AMRO); APOC JAF	Support ENVISION countries in reporting to technical oversight groups and participate in regional decision-making affecting those countries.	RTI advocates for decisions on key issues that are preventing countries from progressing, including: <ul style="list-style-type: none"> - Urban mapping/impact assessments - Stopping MDA in LF/OV areas - Appropriate levels for collecting data for STH decision making 	Achille Kabore, Katie Crowley, Abdel Direny, Molly Brady, Eric Ottesen, Lisa Rotondo
WHO/NTD-STAG Working Group on Capacity Building	Organize global capacity building initiative; identify most effective role for ENVISION activities integrated with the global strategic plan	RTI leads the development of specific training modules and will support the rollout in ENVISION countries and, as needed, regionally.	Amy Doherty Maggie Baker
WHO Working Group on M&E/Impact/data management	Optimize data collection tools and strategies for ENVISION countries in line with WHO norms	RTI contributes its M&E and data management expertise to developing WHO's global norms and, in so doing will enhance WHO's reputation as a global leader in M&E	Katie Zoerhoff
WHO/NTD-STAG M&E Working Group	Resolve uncertainties in mapping, new diagnostics, surveillance strategies, and criteria for elimination	RTI invests its experience, expertise, and national program linkages to help develop the appropriate norms and algorithms for program implementation. Using ENVISION data and familiarity with national programs, RTI advocates for decisions on key issues that are preventing countries from progressing, including the list of key technical challenges above	Katie Zoerhoff

Table 26. Participation in WHO's global technical meetings

Name of Working Group or Sub-Working Group	Purpose	RTI contributions	ENVISION Staff
WHO AFRO Coordinated Mapping Group	Coordinate mapping activities, review plans, determine gaps and collaborate with partners and donors to complete mapping for all PC-NTD in the AFRO region	RTI provides technical and financial support to fill the mapping gaps (pending availability of resources). Coordinated with AFRO and partners to avoid overlapping. Participate in monthly conference calls to provide updates and technical inputs	Achille Kabore, Eric Ottesen
WHO M&E Subgroup on Disease-Specific Indicators (These are ad-hoc groups as appointed by WHO or the Subgroup Chair)	On an ad-hoc basis, resolve uncertainties in mapping, new diagnostics, surveillance strategies, and criteria for elimination	Using ENVISION data and familiarity with national programs, RTI advocates for reasonable and programmatically feasible decisions on key M&E guidance	Molly Brady Eric Ottesen
WHO NTD-STAG Monitoring and Evaluation Working Group	Discuss surveillance post validation of elimination of trachoma as a public health problem	RTI provides experiences from ENVISION-supported countries and technical expert opinion	Lisa Rotondo
WHO Core Working Group on LF MMDP	Provide support to WHO HQ on development on MMDP strategies and tools	RTI will provide feedback based on field experiences to revise draft LF MMDP tools to make them more useful at country and district levels	Molly Brady

*AFRO: Africa Regional Office, APOC: African Programme for Onchocerciasis Control, CWW: Children without Worms, DOLF: Death to Onchocerciasis and Lymphatic Filariasis
 GAELF: Global Alliance to Eliminate Lymphatic Filariasis, GET2020: Alliance for the Global Elimination of Blinding Trachoma by 2020, ICTC: International Coalition for Trachoma Control, JAF: Joint Action Forum, PDCI: Partnership for Disease Control Initiatives*

Table 27. ENVISION staff contributions to global working groups, beyond WHO

ENVISION staff	Name of working group or sub-working group
Lisa Rotondo	NTD Nongovernmental Development Organization (NGDO) Network (NNN) Vice-Chair (Chair as of October 2015) and Executive Committee
	Uniting to Combat NTDs Stakeholder Working Group, under NNN Vice Chair role
	ICTC Strategic Working Group
	GTMP Advisory Committee
Eric Ottesen	BMGF STH External Advisory Group
	Coalition for Operational Research on the NTDs, TFGH
Achille Kabore	Global Schistosomiasis Alliance – Co-Chair, Implementation Working Group
Molly Brady	LF NGDO Network: Appointed as Vice-Chair in September 2014 NNN Executive Committee
Katie Crowley	Co-Chair ICTC MDA practices and capacity strengthening working group
Philip Downs	STH Coalition
	LF Network – WASH: Represented LF network at WASH working group meeting at NNN
Sharone Backers	NNN WASH Working Group
Scott McPherson	NNN Morbidity Management and Disability Working Group
Alex Pavluck	Co-chair of the ICTC eHealth working group
	GTMP Advisory Committee
Jennifer Leopold	Co-Chair ICTC Communications and Advocacy Working Group

Key Regional Policy Meetings Attended

Sixth NTD-STAG Global Working Group Meeting on M&E of Preventive Chemotherapy (February 9–11, 2015). This meeting, which was held in Geneva, aimed to prepare a working paper on M&E of PC interventions to present to the NTD-STAG 2015, and to determine priority activities for each of the sub-groups for 2015 and beyond. Meeting discussions focused on assessment and assurance of PC data quality for national programs, diagnostics for SCH, coordinated M&E for LF and OV elimination and program evaluation.

ENVISION was represented by two RTI staff members Katie Zoerhoff and Phil Downs. Katie Zoerhoff has also served as advisor to the working group and rapporteur for the meeting. Country representatives shared important information regarding country and regional challenges with M&E, including low coverage, accuracy of denominators for determining coverage, persistent microfilaraemia, human resource constraints for M&E, and challenges with data timeliness. Strategies to address these concerns will subsequently be incorporated into ENVISION’s activities, where appropriate.

WHO African Region NTD Regional Program Review Group Second PC meeting (February 15-21, 2015).

Achille Kabore and Lisa Rotondo participated the WHO African Region NTD Regional Program Review Group Second PC meeting in Brazzaville, Congo. The meeting included National Program Managers from Burkina Faso, Mali, Congo, The Gambia, Malawi, Mali, Nigeria, Tanzania, and Uganda. In addition, about 20 RPRG members, 10 observers, and 16 WHO staff (AFRO, APOC, HQ) attended the meeting.

Presentations and subgroup meetings on PC-NTD Mapping Project, LINKS, Mapping Review Groups, MDA Scale-up (review of MDA reports, medicine applications and scale up/down plans), review of

Transmission Assessment Survey eligibility and report forms, were all conducted as part of the meeting proceedings. As an official observer to the meeting, ENVISION representatives were able to provide useful context and justifications to support national NTD program data and represent the needs of USAID-supported countries in receiving consistent and timely review, which is essential for program implementation. Several notable themes and observations came out of the meeting:

- Observers (which included RTI) stressed the need for the RPRG to fulfill its newly established remit to address issues of preventive chemotherapy for all NTDs, including trachoma, and to lessen focus on other interventions (WASH, morbidity, etc.) that may detract from its mission. The continued focus on LF has led some disease experts to drop out, feeling their expertise was not being utilized. The need for an established means of interacting and linking with the TEC was noted as essential to this integration.
- As has noted in previous occasions, the need for better communication between the RPRG and national programs was a focus of the meeting. Several countries cited issues with delayed or incorrect implementation based on the lack of response from the RPRG. The cumulative impact of these issues for country programs on a global level was loss of financial resources, drugs, and time. The group recommended to identify liaisons between the RPRG and countries and create an AFRO RPRG secretariat. Essential to the success of the RPRG's role in providing technical guidance will also be the need to conduct ad-hoc reviews and approvals in-between formal meetings.
- During the presentation on the PC-NTD Mapping Project, it was noted that the current gaps identified by AFRO differ from those identified in the USAID NTD Database and those recognized by GTMP. Based on these discrepancies with AFRO's data, participants suggested that a system for tracking mapping gaps be developed and included in the WHO Joint Application Package. In the same way, a standard report template was suggested during the mapping review groups to ensure standardized data are reported for consistent review across countries.

PDCI Meeting (June 23–24, 2015). Lisa Rotondo and Eric Ottesen attended the PDCI meeting in London on June 23-24, 2015 and shared information about the challenges and successes that the project and ENVISION country partners encounter regarding global NTD supply chain. During the meeting, pharmaceutical companies, drug donation programs, donors and implementing partners discussed the global supply chain for NTD medicines, AEs and SAEs, forecasting, procurement (outside of donated drug) and advocacy efforts.

A joint PDCI and Donors Meeting was attended by ENVISION, BMGF, CIFF, DFID, QEDJT, End Fund, Conrad N. Hilton Foundation, Mundo Sano, Garfield Weston/Greenpark Foundation, Higher Life Foundation, Vitol Foundation, GNNTD, World Bank, and USAID. Key discussions centered on the difference in costs for implementation of MDAs and DSAs, with the latter being substantially more expensive. Wanting to ensure the best allocation of drugs, both donors and pharmaceutical company representatives expressed concern that some national programs may wish to continue MDAs when funds are not available for DSAs.

A separate meeting was held to discuss implementation in DRC, with USAID, DFID, SCI, End Fund, MDP, and Filariasis Programmes Support Unit, Liverpool School of Tropical Medicine (FPSU, formerly known as the Centre for Neglected Tropical Diseases) and others in attendance. The meeting outcomes included plans to (1) develop a matrix of NGOs that work in each province to avoid duplication of efforts, (2) schedule a senior management delegation visit to DRC in July/August 2015, and (3) establish regular in-country NGO meetings to enhance and ensure ongoing coordination. During the PDCI meeting, RTI also met with MDP to discuss drug management and request issues in Nigeria.

Uniting to Combat NTDs—Third Progress Report Launch (June 25, 2015). Lisa Rotondo was a lead speaker and panelist at the launch of the Third Progress Report from Uniting Combat NTDs in London on June 25, 2015. Speakers at the morning event included Stephen Green, Lord Green of Hurstpierpoint (Chair of Board of Trustees of the Natural History Museum), Sir Michael Dixon (Natural History Museum director), Dr. Julie Jacobson (BMGF; Chair of UTC Stakeholders Working Group), Dr. Keseteberhan (Ethiopia Federal Minister of Health), Rt. Hon. Desmond Swayne (Minister of State for International Development, United Kingdom), Dr. Winnie Mpanju-Shumbusho (Assistant Director General for HIV/AIDS, TB, Malaria, and NTDs at WHO), Mr. Andy Wright (GlaxoSmithKline, PDCI Chair), Joe Cerrell (BMGF Managing Director for Global Policy and Advocacy) and Lisa Rotondo as NTD NGDO Network Vice Chair. The panel was moderated by Mr. Jon Snow of Channel 4 news. Ms. Rotondo's remarks focused on the important role that NGOs play, the key link between NTDs and development, and the need for additional funding for implementation.

The ENVISION-supported countries of Uganda and Ethiopia were both highlighted at the event. In the Third Progress Report³⁷, Uganda is recognized for “fostering milestone-based donor funding going directly to 78 districts, reducing bottlenecks at central level and increasing accountability and commitment at all levels”. The event also featured a video feed from Uganda, including Dr. Edridah and the ENVISION-identified community drug distributor.

Pan-American Health Organization (PAHO) 16th Regional LF Elimination Program Managers' Meeting and 15th RPRG (June 29–30, 2015). Kalpana Bhandari represented ENVISION at both meetings held in Recife, Brazil and presented the Integrated NTD database. There were 32 participants, and four PAHO countries present—Brazil, Guyana, Haiti, and Dominican Republic. Ms. Bhandari provided an overview of the tool, context for its use, and experience in implementation. Representatives from the Haiti MOH also participated and shared their experience with other countries. The orientation was timely, as PAHO was encouraging many countries to prepare LF dossiers, which will require the gathering and organization of historical program data.

WHO WPRO Regional Program Review Group meeting (July 20–22, 2015). Molly Brady participated in the Western Pacific Regional Office (WPRO) RPRG meeting in Davao City, Philippines. Molly's attendance at the meeting was critical as ENVISION prepares to provide increasing technical assistance in the region in FY16. During the meeting, Ms. Brady met with END in Asia staff, USAID, and country NTD program

³⁷ Reference: <http://unitingtocombatntds.org/report/country-leadership-and-collaboration-on-NTDs>

managers to discuss the transition of END countries to ENVISION and the corresponding support needed for FY16. The WPRO RPRG unveiled the new Regional Dossier Review Group and process for validation, which will be important for ENVISION assistance in the region in the coming years.

WHO AFRO Master Plan Workshop (September 7–11, 2015). This workshop, held in Douala, Cameroon, aimed to assist countries to develop or update their NTD master plans for 2016–2020. The meeting was organized by the WHO/AFRO Central Africa Inter-Country Support Team (IST-Central) in collaboration with IST-West. The workshop was led by a team of facilitators from WHO Geneva, WHO/AFRO IST-Central and IST-West, TFGH, RTI, and WHO/AFRO consultants. Achille Kabore attended on behalf of ENVISION and facilitated an M&E session.

Participants also included NTD program managers from Angola, Burundi, Central African Republic, Chad, Cameroon, DRC, Republic of Congo, Equatorial Guinea, Madagascar, Rwanda, and Sao Tome and Principe. During the workshop, participants utilized the revised master plan template from AFRO, which had been updated with a focus on scaling up interventions and capacity building for the NTD programs. Overall, program managers reported that the new template was user friendly, although many had problems with the budgeting tool. For this reason, many countries expressed renewed interest and need for training and support for the TIPAC. Because there was wide variation in the stages of national NTD programs as well as the status of their master plans, participants recommended that facilitators be given ample time to review existing master plans before the workshop in the future, to better tailor the guidance and TA needed by each country.

NTD NGDO Network Meeting, Abu Dhabi, United Arab Emirates (September 15-16, 2015). The theme of the sixth annual meeting was “NTDs Post-MDGs and Pre-SDGs: Contributing to the Agenda.” CBM hosted the meeting for the second time, and it was the largest yet with over 200 participants and many WHO observers. Travel grants for the conference made possible the increased participation from national ministries of health representatives. Lisa Rotondo, Katie Crowley, Jennifer Leopold, Scott McPherson, Hannah Frawley, and Molly Brady attended on behalf of ENVISION. Highlights of the meeting included

- Lisa Rotondo was named Chair of the NNN, with Wendy Harrison, elected as Vice-Chair. Consequently, Ms. Rotondo led NNN Executive Committee discussions around NGDO representation on the WHO AFRO Expanded Special Project for Elimination of Neglected Tropical Diseases (ESPEN) transitional steering committee; coordinated and sent letter to Dr. Moeti with the NNN proposal.
- Staff participated in one or more of the disease specific working group meeting which preceded the NNN plenary, including the ICTC meeting, STH-SCH NGDO Coordination Group, WASH Meetings, OV and MMD Working groups. ENVISION participants also staffed a table in the knowledge management marketplace, sharing tools, resources, and approaches developed by the ENVISION project with other NGDO colleagues.
- Molly Brady chaired the LF network meeting, which included updates from WHO, Global Alliance to Eliminate Lymphatic Filariasis and other partners, an update about ESPEN, a

presentation from the Ethiopia FMOH and the MMDP Project team about the Ethiopian experience of creating MMDP guidelines in coordination with the podoconiosis program and with FPSU.

- Designed, organized, chaired and participated in a presentation with the FMOH on the scale-up of interventions in Ethiopia—one of the most popular NNN plenary sessions this year. ENVISION participated in a coordination meeting for the 500 millionth treatment of Zithromax (November 16, 2015). ENVISION, ITI, and Sightsavers will be the key partners coordinating this event with the Ethiopia FMOH.
- Participated in meeting on NNN communications and advocacy, resulting in agreement not to create another committee but rather to link with groups already conducting advocacy (GNNTD, UK Coalition, etc.) (Lisa Rotondo, Jennifer Leopold)
- Lisa and Katie Crowley met with Azadeh Baghaki, WHO NTD Logistics/Drug representative, to discuss WHO PZQ prequalification process and drug quality assurance issues
- Katie met with Louise Kelly-Hope from FPSU to talk about Nepal program planning and sustainability. FPSU will be supporting MMDP burden assessments/mapping.
- Katie and Scott discussed potential Korea International Cooperation Agency funding for Tanzania, Uganda, and Ethiopia.
- Lisa led side discussions of the NNN Executive Committee regarding the NNN's representation on and participation in the Uniting to Combat NTDs partnership. This included a detailed review of the Uniting Stakeholders Working Group terms of reference.
- Began planning for the 2016 NNN meeting to be hosted by ENVISION in Washington DC, including identifying the event management group, hotel space, and best schedule and timing in light of other NTD global events in 2016.

WHO African Region NTD Regional Program Review Group Third PC Meeting and Program Managers Meeting (September 28–30, 2015). Achille Kabore represented ENVISION for both meetings. Key discussions centered on the launch of ESPEN, what to do between TAS and after TAS, the joint application package, and obtaining timely feedback from the RPRG. During the meeting, participants discussed the difficulties country programs are facing issues with the joint application package and recommended that WHO revised instructions to provide more details about how to complete the forms and submit to WHO. The issue of TAS eligibility and the decision to stop MDA was of particular interest, as some countries have implemented TAS without being eligible and have still passed. The group discussed how these countries should proceed in stopping MDA and what RPRG approval is needed. The RPRG will now provide review and approvals on an ad hoc (virtual) basis, therefore countries will no longer be required to wait for the next formal RPRG meeting. Furthermore, each country in the region has also been assigned a focal person within the RPRG who will review the request and liaise with the Secretariat to get a response in a timely manner.

NTD Drugs and Diagnostics

Donor Coordination

RTI participates in and initiates donor coordination mechanisms in order to strengthen procurement in support of country programs. In addition to our ongoing participation in WHO-led discussions about PZQ procurement, RTI works with WHO and the drug donation programs to track requests, approvals, and shipments of donated IVM, ALB, MEB, and Zithromax. As such, ENVISION plays an important role in facilitating communication between national NTD programs and drug donation programs. This communication is informal and ENVISION reaches out to the donation programs when issues arise in specific countries to facilitate resolution.

ENVISION is working with USAID to understand and clarify the new WHO donation of FTS. ENVISION has provided information to WHO about upcoming planned TAS surveys and diagnostic needs. At this time, it is anticipated that ENVISION will provide ICT cards or FTS, for all countries in the portfolio where TAS is anticipated to take place in calendar year 2015. ENVISION has been encouraging country programs to make the switch to using FTS.

Table 28. Value of donated drugs delivered to ENVISION supported countries, FY15, in USD

Country	FY15 total
Benin	\$18,475,313
Cameroon	\$56,034,480
DRC	\$151,022,850
Ethiopia	\$1,034,659,890
Guinea	\$55,187,376
Haiti	\$610,017
Indonesia	\$3,026,400
Mali	\$16,198,500
Mozambique	\$7,632,300
Nepal	\$480,285
Nigeria	\$349,904,341
Senegal	\$37,374,714
Tanzania	\$76,493,025
Uganda	\$181,646,566
ENVISION Total	\$1,988,746,056
<i>Note: The values represent a donation to the entire country, not just USAID-supported areas.</i>	

To date, there have been \$6,539,647,662 worth of donated drugs delivered to ENVISION countries, since FY12. In the first half of FY15, nearly \$2 billion in donated medicines were delivered to countries supported by USAID's NTD Program, including those supported by ENVISION (Table 28). A total of \$11.2 billion have been donated since the start of the program.

NTD Drug Procurement

During FY15, RTI procured DEC, PZQ, and tetracycline eye ointment (TEO) for donation to countries supported by ENVISION. See Table 29 for drug procurement details by country.

Table 29. Drug procurement supported by ENVISION, FY15			
Country	Tablets of PZQ delivered	Tablets of DEC delivered	Tubes of TEO delivered
Benin	1,657,500		
Ethiopia			330,100
Haiti		26,634,000	
Senegal			253,000
Uganda	5,219,000		315,000
FY15 Total	6,876,500	26,634,000	898,100

**Commodities delivered to countries were not necessarily distributed by national programs during the same reporting period.*

NTD Diagnostics Procurement

Table 30. Diagnostic procurements supported by ENVISION, FY15			
Country	ICT cards delivered	Kato Katz kits* delivered	Brugia Rapid tests delivered
Benin		24	
Cameroon	19,075		
DRC		12	
Haiti	50,550	12	
Indonesia	6,600		3,800
Mali	18,150		
Tanzania	72,050	12	
Uganda	7,250		
FY15 Total	183,525	48	3,800

** 400 tests per kit*

In addition to drug procurement, RTI procured diagnostic commodities, Kato Katz kits (for SCH mapping and STH TAS), and ICT cards (for LF sentinel sites, remapping, and TAS). A pooled procurement of these commodities is aimed at creating economies of scale and streamlined logistics. Table 30 presents diagnostics procurement by country.

ENVISION faced challenges with diagnostic procurement in the first half of FY15. Vestergaard Frandsen, the WHO-recommended manufacturer of Kato Katz kits, stopped producing new kits and their stock ran out in early CY15. RTI was able to purchase some of the remaining kits for critical country programs (Benin, DRC, Haiti and Tanzania). Globally, partners have been working to identify a high quality replacement for the kits, and RTI has liaised with WHO, CDC, and the TFGH to coordinate. At this time, the situation is still in flux, and we will continue to work with partners to identify a new manufacturer.

RTI procured a large number of ICT cards for use by country programs to complete sentinel and spot check site surveys, TAS, and LF mapping. RTI also procured Brugia Rapid kits for Indonesia, for use in pre-TAS and TAS.

Technical Assistance in Logistics

ENVISION provides funding for drug logistics officers in Uganda, Tanzania, and Mozambique. These technical assistants work closely with the national NTD programs and MOHs to provide a wide variety of supply chain support needed for MDA campaigns. In Tanzania, ENVISION hired a drug logistics officer, seconded to the Ministry of Health and Social Welfare (MOHSW), who works with the NTD Secretariat, the Tanzania Food and Drug Administration, and the Medical Stores Department. The logistics officer prepares the JRSM and Trachoma Elimination Monitoring Form (TEMF), facilitates customs clearance of drugs, and trains pharmacists at national, regional, and district levels. In FY15, the drug logistics officer provided training to regional pharmacists to create teams who supervise and train district-level pharmacists before, during, and after the MDAs. The Tanzania NTD program also now receives much quicker and more accurate information about the amount of NTD drugs available after MDA is completed, based on training conducted by the drug logistics officer and his follow-up with district and regional pharmacists.

In Uganda, ENVISION has also hired a logistics officer to assist NTD program managers in estimating drug quantities; completing the JRSM and TEMF; following up on the clearance of drugs and equipment through customs; and procuring local supplies. The logistics officer monitors all drug shipments into the country and coordinates with National Medical Stores the quantities of drugs needed in each district and the timing of delivery. He also confirms drug stocks and the various levels after MDA and determining where drugs can be moved to prevent drug stock outs.

Mozambique's drug logistics consultant provides technical support to ENVISION and the MOH prior to MDAs, when he assists with drug packaging, and completion of the JRSM and TEMF. This short-term local technical consultant is more appropriate than a full time staff member for the period of support that the national program needs for managing drug logistics before, during and after MDA. The services provided are incredibly important to ensure that an ample supply of the correct drugs is delivered to districts in a timely fashion. In Mozambique, the consultant is engaged when needed most, especially repackaging drugs for campaigns, pre-drug distribution for MDAs, drug audits, and guidance to the MOH for drug requisition. For all three countries, costs associated with these personnel are included in the respective country budgets.

In Senegal, Management Sciences for Health (MSH)'s USAID-supported Systems for Improved Access to Pharmaceuticals and Services project conducted a supply chain assessment in FY15. RTI expects to receive the report from MSH in Q1 (October–December 2015) of FY16, and it will inform the next steps for strengthening the system. RTI anticipates that MSH will provide additional TA to Senegal, with an emphasis on supporting drug quantification and reverse logistics.

NTD Supply Chain Forum

RTI, in partnership with WHO, and with funding from GlaxoSmithKline and from the BMGF (non ENVISION funding), began working to develop a cloud-based system that will provide WHO and pharmaceutical producers a single source for collecting and accessing data on supply forecasting,

production planning, and details on shipment and delivery. These data, while stored separately, will link directly to the WHO application database, allowing for WHO to integrate these data, while protecting national programs ownership over their application information. RTI anticipates that this system will help WHO and pharmaceutical partners to improve forecasting, planning, and timely delivery of NTD drug donations which will, in turn, benefit ENVISION-supported countries accessing the NTD drug donations.

Technical Assistance Facility

The ENVISION TAF provides specific TA to countries receiving or qualified to receive USAID support for NTD control and elimination. The TAF was designed to be flexible and responsive, with the level of effort determined by demand and coordinated through a small ENVISION management and technical team, accessing a broad range of consultant expertise.

Table 31 details the FY15 TAF requests and activities that will continue into the first quarter of FY16 (October–December 2015). In Cambodia, the TAF has aided in the successful development of the country's LF elimination dossier. The development of the LF elimination dossier for Vietnam is ongoing; the TAF consultant is collating MMDP components and data for inclusion in the LF dossier. Through the TAF mechanism, ENVISION is working closely with Cambodia, Bangladesh, and Vietnam, as well as with WHO, to update and finalize their national LF elimination dossiers and prepare them for submission. With TAF support, these three countries prepared for dossier submission and understood the critical steps necessary to complete data collection to meet dossier requirements. In addition, country and consultant feedback was used to modify the WHO templates to make them more user-friendly.

Requester	Country	Topic	Status
USAID	Cambodia	LF elimination dossier development	Report finalized
USAID	Bangladesh	LF elimination pre-dossier development	Report and draft pre-dossier finalized
USAID	Vietnam	LF elimination dossier development	MMDP data being integrated into the dossier
Sightsavers	Guinea Bissau	NTD database and DQA rollout	Completed report under review
Sightsavers	Cote d'Ivoire	NTD database and DQA rollout	Scheduled for fourth week of November
Sightsavers	South Sudan	NTD database and DQA rollout	Completed report under review

Global Mapping

The WHO/AFRO NTD mapping project is the largest initiative to assess the prevalence of targeted diseases in the African region. The ENVISION project team attends the monthly mapping discussions with the WHO/AFRO NTD mapping team and provides updates and advice on programmatic mapping issues for the AFRO region. Twenty countries (representing 2,742 surveys) have completed mapping for one or more PC NTDs since the launch of the WHO/AFRO NTD mapping project. As of July 2015, 37

countries (79%) in the African region were fully mapped, and 30 countries are still undergoing mapping. Trachoma mapping is supported by ENVISION in collaboration with the GTMP. Mapping surveys have been completed in Chad and Zambia, and are ongoing in Cote d'Ivoire, Malawi and Zimbabwe, (Table 32). DRC trachoma mapping will be completed with ENVISION assistance in FY16.

Table 32. Global mapping supported by ENVISION			
Country	Diseases	Districts targeted	Status
Chad	Trachoma	29 EU (including 7 through DFID support)	27 mapped, 2 cancelled for security reasons (mine field)
Cote d'Ivoire	Trachoma	17	Ongoing
DRC	Trachoma <i>Loa loa</i> , LF and OV	31 for trachoma 11 districts for LF, <i>Loa loa</i> and LF mapping	16 districts (remaining) for trachoma survey LF, Loiasis, and OV will be mapped in November 2015
Malawi	Trachoma	2	Ongoing
Zambia	Trachoma	3	Completed
Zimbabwe	Trachoma	8 (Trachoma)	Ongoing. Additional districts to be determined by MOH and GTMP experts

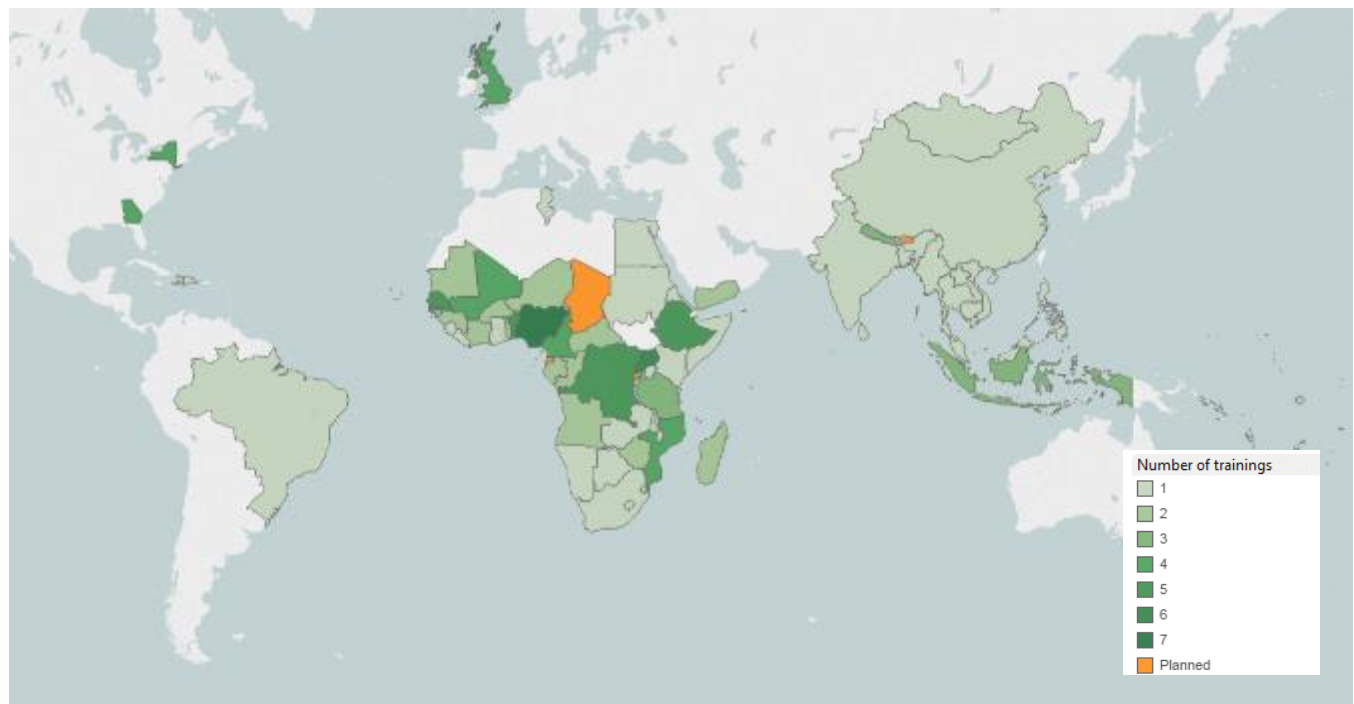
The gap in mapping as of July 2015 was at least 924 districts for LF, STH and SCH in 10 countries. Additionally, the trachoma mapping project has gaps in 138 districts across 14 countries; many of these have not been filled due to security issues. Despite these challenges, recent progress in terms of logistics, availability of human resources and countries political will, show that the AFRO mapping project is on track towards its goal of completing mapping in targeted countries by the end of 2015.

Capacity Strengthening

The ENVISION project has developed, disseminated, and provided training and TA on the tools and resources necessary for effective NTD program implementation. As other organizations and countries have come to see the strong value of these tools and resources and are now requesting to use and be trained on them, ENVISION is increasingly seen as a leader in the field of NTD capacity strengthening. ENVISION supports the implementation and participant attendance for several courses to strengthen the capacity of national NTD programs.

To date, ENVISION has trained individuals from over 77 countries (Figure 13). The trainings and other activities have strengthened the capacity of individuals working from community to global level, as well as a cadre of trainers and experts on NTD guidelines and tools.

Figure 13. Number of ENVISION-supported NTD Trainings attended by representatives of NTD endemic countries



Leadership in Capacity Strengthening

To meet countries' capacity needs, ENVISION has developed, disseminated, and provided training and TA on the tools and resources necessary for effective NTD program implementation.

Playing a strong role in the WHO Working Group on Capacity Strengthening. ENVISION continued to serve as a core advisor to the WHO Working Group on Capacity Strengthening, thereby helping to lead the global dialogue on NTD capacity needs. Throughout the year, ENVISION maintained routine communication and collaboration with the WHO Capacity Strengthening Team Leader and WG-CS Chair identify capacity gap and prioritize capacity building efforts. ENVISION prepared its annual report to the WG-CS Chair for inclusion in the report to the STAG-NTD highlighting the major contributions the project has made toward developing local capacity.

Building a cadre of experts and trainers on ENVISION-developed tools. To meet the increasing demands for ENVISION, the project continued to strengthen and maintain our network of field-based experts who are able to provide training and TA on ENVISION-developed tools, such as the TIPAC and Integrated NTD Database. This allows for further project scale up and increased resource access for countries while reducing travel costs and increasing local capacity.

Measuring the long-term impact of ENVISION-supported capacity strengthening activities. In FY15, ENVISION focused on measuring the longer-term outputs and outcomes of training and capacity strengthening activities. The project developed a framework to not only track the number of individuals

trained, but also mapping training inputs and outputs to impact metrics to assess whether activities have truly increased both individuals' (i.e., training participants') and institutions' (i.e., national NTD programs') capacity to successfully implement MDA programs and meet their target control and elimination goals. ENVISION also developed indicators to better measure capacity strengthening outputs and outcomes in FY16.

Implementing a knowledge management system. In FY15, ENVISION also planned for, developed, and began implementing a knowledge management system to disseminate new resources and capture best practices so they can be applied in NTD program implementation and the global NTD policy dialogue while establishing an ENVISION legacy of well-catalogued project knowledge and resources for NTD program sustainability.

Training Materials Development

SAE Training. During FY15, ENVISION implemented a dissemination strategy to ensure broad electronic and hard copy distribution and use of the A Handbook for Managing Adverse Events following Mass Drug Administration and Serious Adverse Events (hereafter SAE handbook). More than 250 print copies of the handbook have been delivered to national NTD programs, NGOs and global experts, and the easily accessible. In addition, the [Online Handbook](#) has been shared with numerous individuals working on NTDs.

ENVISION also finalized a complete in-person training package for national program managers which includes modules on patient care, communicating with communities and the media, distinguishing AEs from SAEs, determining causality, reporting SAEs, and correcting identified problems. The project is currently finalizing a plan for wide training rollout in FY16 Q2, which will include an eLearning component and details on how to make the training available to additional USAID-supported countries.

NTD Trainings Conducted

WHO Standardized District-Level Management NTD Training Course. This year, ENVISION played a key role in developing the draft of the WHO Standardized District Level Management NTD Training Course. The course includes modules on disease basics; program management; budgeting and resource mobilization; advocacy, sensitization, and social mobilization; MDA operations; morbidity management; WASH; laboratory and diagnostics; and M&E.

In April 2015, ENVISION provided critical support to finalize the training modules, plan, prepare for, implement, and facilitate the course pilot in Tanzania in partnership with WHO and the Tanzania MOHSW. During the pilot, experts from WHO, ENVISION, and other organizations trained 13 Tanzanian facilitators to lead the course. With the support of ENVISION and other pilot facilitators, the 13 newly certified Tanzanian facilitators led the trainings for a total of 57 participants from multiple districts in three regions—Mbeya, Morongoro, and Bagamoyo. After the end of trainings, the facilitators held a debrief meeting to share their experiences and provide feedback on the course materials and implementation.

ENVISION then supported WHO to revise the course based on lessons learned and feedback obtained during the Tanzania pilot, including adding a module on SAEs, improving facilitator's guides, developing job aids, and developing strategies for course rollout. The course can be customized for the country context and will serve as a key resource for district-level NTD management teams in implementing and scaling up NTD programs at the level of implementation.

WHO Integrated NTD Program Managers' Training Course. This modular, five-day course developed by WHO, USAID, RTI, and many additional NTD partners features critical components of integrated NTD strategies, including implementation techniques, program management principles, drug and SAE management, M&E, planning and costing analysis, and advocacy strategies to garner long-term support.

During FY15, ENVISION supported two regional WHO Integrated NTD Program Managers' Training Courses in collaboration with WHO: one in the WHO Regional Office for the Eastern Mediterranean (EMRO) and one in the WPRO region. A total of 33 national NTD program managers from 24 countries completed the trainings. Later, in June 2015, ENVISION supported a WHO Integrated NTD Program Managers' Training Course in Mozambique at the provincial level for 31 participants.

TIPAC Technical Assistance and Training. ENVISION trained three countries on the TIPAC in FY15: Ethiopia, Senegal, and Guinea. In each country, two people were trained to be TIPAC focal points, with others, such as program managers and partners also participating in the training. ENVISION also provided technical support in using the TIPAC to Indonesia. Demonstrating the effectiveness of ENVISION's capacity strengthening activities from previous years, other ENVISION countries continued to use the TIPAC independently during FY15 without direct ENVISION support.

Integrated NTD Database Training and DQA Trainings. The Integrated NTD Database Training equips participants with the knowledge and skills to customize the national database template to their country context and utilize the database to store, manage, analyze, and report NTD data. The Integrated NTD Database and DQA trainings are held in conjunction with one another to minimize costs and travel time.

In December 2014, ENVISION supported a combined Integrated NTD Database and DQA training for 54 National NTD Program Managers from Francophone WHO AFRO countries, as well as an additional training on the Integrated NTD Database, this time for program and data managers from Uganda. ENVISION carried out training and provided TA for implementation of the DQA in five countries in FY15: Benin, Ethiopia, Haiti, Mozambique, and Nigeria. In addition to formal DQA trainings in these countries, ENVISION provided on-the-job training and support to those implementing the DQA at district and community levels, further strengthening local capacity throughout the data reporting system.

Grants Management Training. Grants management training aims to develop the capacity of NGOs, civil society organizations, and host government entities to successfully manage U.S. government funds – USAID funds in particular. The core elements focus on pre-award surveys, evaluation, types of grants, execution of grant award, administration and regulatory compliance.

In February 2015, ENVISION conducted grants management training in Nepal for 16 logistics and field supervisors and financial staff on administration and management of fixed obligation grants. Later in May 2015, ENVISION conducted another training, this time in Uganda for 90 district focal points and health officers.

Scientific Stature Workshops. RTI previously developed and implemented a Scientific Analysis and Writing Workshop in other RTI global health projects, which resulted in new publications and increased scientific stature. Based on the success of those workshops, ENVISION implemented the workshop in May 2015 in Uganda for national program managers and the NTD technical committee. The workshop focused on enabling participants to better communicate program activities and interested data points through technical reports, presentations, conference abstracts and peer-reviewed publications, with a strong focus on data analysis and interpretation skills. Additional post-workshop support has been provided for Uganda to continue developing topics that were identified during the workshop for conference presentation and/or publication.

Strengthening Project Staff Capacity

ENVISION Training Series. At the end of FY14, the project began work on a new initiative to increase the capacity of RTI and partner staff on ENVISION tools and resources, improve TA to ENVISION countries, lead to further standardization of NTD tools and processes across USAID's NTD portfolio, and minimizing additional training costs. This initiative, the ENVISION Training Series, was successfully launched in FY15. The FY15 series consisted of the following trainings in the Washington, DC office attended by ENVISION and partner organization headquarter staff:

- TAS Training (Dec 2014). 14 participants attended the practical training on the Transmission Assessment Survey for LF.
- TIPAC Training (May 2015). ENVISION trained eight participants on using the TIPAC to support countries to improve their planning and budgeting.
- Serious Adverse Events (June 2015). ENVISION piloted its new SAE course, with 10 participants attending and providing valuable feedback to make further course improvements before large scale rollout.
- DQA (July 2015). ENVISION trained ten participants to support partner countries in planning for, implementing and interpreting the results of the DQA for NTD programs.
- Integrated NTD Database (Aug 2015). Nine participants gained hands-on experience with the database in this hands-on session.

With the demonstrated participant interest and the success of the ENVISION Training Series in FY15, the project plans to not only continue the series, but also expand it to be accessible to partner country field staff via webinar in FY16.

Table 33. Training courses implemented with ENVISION support in FY15

Training	# of participants	Profile of participants	Countries or regions	Nature of ENVISION support	Collaborators and their role
WHO Integrated NTD Program Managers' Training	64	National NTD program managers; provincial NTD program managers	WHO EMRO region, WHO WPRO region, Mozambique provinces	Technical, facilitation, financial	WHO (financial), Mozambique MOH
Integrated NTD Database Training	69	National NTD Program Managers, MOH Data Managers	WHO AFRO region (Francophone), Uganda	Technical, facilitation, financial	WHO (technical), AFRO (technical), Uganda MOH
Data Quality Assessment Training	112	National NTD Program Managers, MOH Data Managers	WHO AFRO region (Francophone), Ethiopia, Mozambique, Haiti, Benin, Nigeria	Technical, facilitation, financial	WHO (technical), AFRO (technical), MOHs
Grants Management Training	106	District Focal Points, District Health Officers, Logistics/field supervisors and finance staff	Nepal, Uganda, United States	Technical, facilitation, financial	Uganda, Nepal
Scientific Stature Workshop	12	Program Managers, NTD Technical Committee	Uganda	Technical, facilitation, financial	Uganda
WHO District-level NTD Program Managers' Training	70	MOHSW program, data and financial managers (Training of trainers), District-level NTD program managers (district pilot trainings)	Tanzania	Technical, facilitation	WHO (financial, technical, facilitation), Tanzania MOHSW (financial, technical, facilitation), other NGOs (technical, facilitation)
ENVISION Training Series	TAS: 14 TIPAC: 8 SAEs: 10 Database: 9 DQA: 10	ENVISION headquarters staff, ENVISION partner headquarters staff, other NGOs, USAID	United States	Technical, facilitation	--
TOTAL	484				

In addition, ENVISION provided funding and TA to national NTD programs in support of the cascaded training conducted as part of MDA implementation (Table 34). At the time of reporting, a large amount of data was still outstanding due to MDA cycles. Once reporting is complete, ENVISION will re-examine persons trained to determine whether training targets are not being reached.

Table 34. Persons trained for MDA with ENVISION support in FY15

Country	# Persons targeted for MDA* training in FY15	# Persons trained for MDA in FY15** (reported to date)
Benin	21,912	21,640
Cameroon	82,549	26,241
DRC	3,927	0
Ethiopia	112,656	70,209
Guinea	11,369	9,169
Haiti	14,164	14,164
Indonesia	91,028	41
Mali	33,693	0
Mozambique	2,876	0
Nepal	41,647	38,740
Nigeria	123,984	94,453
Senegal	0	0
Tanzania	14,367	19,166
Uganda	172,579	43,499
ENVISION TOTAL	726,751	337,322

*Persons include community drug distributors, teachers and supervisors

**Data being compiled or not yet available.

Expected Long-term Impact of Capacity Strengthening Activities

ENVISION's capacity strengthening efforts are expected to make national NTD programs aware of and prepare them to effectively use new and existing global standards, best practices, tools, and resources to increase their own ability to successfully implement MDA and scale-up coverage. Over the long-term, these efforts will lay the foundation for country-owned, effective and sustainable national NTD programs that are ultimately able to meet their NTD control and elimination targets.

Development and Dissemination of NTD Tools and Aids

As the largest global platform working with national NTD programs, ENVISION has successfully collaborated with global partners to develop tools and aides for use by NTD-endemic countries (Figure 13), including but not limited to countries supported by USAID's NTD projects. ENVISION supports the development and testing of these tools as well as facilitating dissemination and uptake through training, TA, publications, webinars, and promotional outreach.

Strengthening data quality

The earlier tools developed by ENVISION were designed to strengthen the quality of data collection and analysis by the MOHs—e.g. the integrated NTD database, DQA, and coverage surveys. These tools have been developed and tested and are now being used at scale.

Integrated database. The integrated database was launched in June 2014. Since then, ENVISION has continued to support the roll out of this tool as follows:

- **Training** – 14 out of the 14 FY15 ENVISION countries have been trained. Furthermore, in coordination with WHO, ENVISION has supported (financially and/or technically) additional trainings, reaching a total of 40 countries through a combination of approaches: training of trainers, regional training workshops, and in-country trainings.
- **In-country TA** – ENVISION has supported 10 countries (Benin, Cameroon, Ethiopia, Guinea, Haiti, Indonesia, Mali, Mozambique, Nigeria, and Uganda) to collect and enter years of historical data and to develop a data management plan. Although most countries are in the process of completing data entry, two countries (Nigeria and Ethiopia) have already used the tool to generate the Joint Reporting Form for WHO.
- **Maintenance support**—With the launch and large scale use of the database a number of bugs have been identified by users. These are reported to ENVISION who continues to work with developers to provide fixes.
- **Help desk**—ENVISION has been acting as a “Help Desk” providing guidance to database users (including non-ENVISION users) to set up the database for their countries and help them troubleshoot country-specific problems.
- **Updates**—Updates to the database, based on requests from current users, were identified, prioritized, and implemented in FY15. Specifically, adding a data validation and strengthening reporting features.

DQA. The DQA protocol and DQA data capture tool was launched for field-testing in April 2013. Since then, 29 countries have been trained through a variety of training approaches, including a training of trainers, regional training workshops, and in-country trainings. These include countries supported by ENVISION as well as those supported through other partners.

Of the 14 ENVISION supported countries that are still implementing MDAs 12 have been trained in DQA and 10 have received additional support to implement the surveys. A multi-country analysis across 6 countries highlighted the need to strengthen the quality of data collected by national programs and results were presented at the 2015 ASTMH, the USAID partners meeting, and the WHO M&E working group.

Coverage surveys. ENVISION supported coverage surveys post MDA in 7 countries in FY15 in a total of 52 districts. Survey results highlight the need for revised social mobilization strategies, particularly in urban settings, to more effectively mobilize target populations; the necessity of implementing directly observed treatment; and the value of strengthened training on data management and supervision during data collection.

Making more effective use of data

Several other tools are in earlier stages of the development process, designed to support national programs to make more effective use of the data in planning NTD activities. These are the **independent**

monitoring guide to be used to identify populations with low coverage during MDAs, a **data review facilitator's guide** to be used during work planning meetings, and three **job aids** that support program managers in thinking through the critical decisions of: when and how to implement DSAs, what to do when districts get low coverage, and what to do if they fail DSA. These are in the initial design phase and drafts are being prepared for field testing.

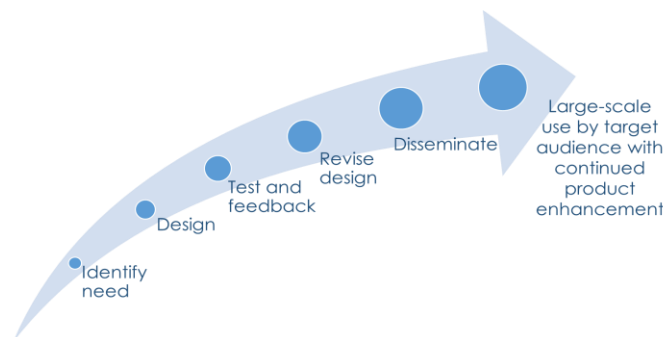
Strengthening MDA management

ENVISION also continues to support the development of several other tools and aids that strengthen MDA management. Two tools that are in the dissemination phase are **TIPAC**, and more recently **the SAE Handbook**. The **supportive supervision checklist** (designed to strengthen supervision conducted by national and district level staff) was drafted in FY15 and will be tested in country in FY16.

TIPAC: The TIPAC is an Excel-based tool developed by RTI and endorsed by WHO for integrated costing and planning of NTD activities. Since the launch of this tool in February, 2012, more than 33 countries have been trained (including 13 ENVISION supported countries). In 2015 7 ENVISION countries used the tool to complete the WHO Joint Request for PC Medicines or documented its use in government planning. Preliminary results of a user survey indicate that, in addition to high rates of MOH staff turnover, lack of access to necessary information is the largest barrier to further use.

SAE Handbook: The development of the SAE Handbook package was completed in FY15 for countries to use as a practical, user friendly, resource to prepare for and manage adverse and serious adverse events following MDA. Further dissemination was promoted through a pilot training (see Capacity Strengthening section) and a webinar attended by 50 participants from 13 countries across 25 organizations.

Figure 14. ENVISION-supported NTD tools



		Status of tool development (End of FY15)					
ENVISION-Supported NTD Tool	Key collaborators*	Identify need	Design	Test and feedback	Revise design	Disseminate	Large-scale use by intended audience with continued product enhancement
Facilitating data management by USAID and ENVISION							
USAID's Disease and Program Workbooks: Microsoft Excel tools to capture data for use by USAID-supported NTD projects	USAID						X
USAID's NTD Database: Data storage and analysis of USAID NTD project data for use by USAID projects	USAID						X
Dashboard and Online mapping tool: Add-ons to USAID Database, to visualize data and facilitate policy decision	USAID		X				
Facilitating data management by national programs							
Integrated NTD Database: Data storage and analysis of NTD data for use by national NTD programs	WHO HQ, AFRO, WPRO, SEARO, APOC, FPSU					X	
Evaluating and improving data quality by national programs							
Post-MDA coverage survey protocol: To enable national programs to validate reported data (can also include KAP survey to inform program planning)	CDC, TFGH			X			
Data Quality Assessment (DQA): To enable national programs to assess strengths and weaknesses of national NTD system for data management	WHO HQ						X
Facilitating use of data in national programs							
Independent MDA monitoring (led by HKI): To identify coverage and compliance issues during MDAs, allowing immediate remedial action to be taken				X			
Low Coverage Algorithm Package: To guide response to low coverage issues identified	WHO HQ, TFGH		X				
Data Review Facilitators Guide: To facilitate synthesis and interpretation of relevant M&E data during in country work planning process, thus empowering program managers to make evidence-based decisions in work plans				X			
DSA job aid: A simplified summary of DSA protocols by disease			X				
Algorithm Package for Not Achieving Critical Cut offs: To guide response to districts that fail DSAs	CDC		X				
Other MDA management							
Tool for Integrated Planning and Costing (TIPAC): To facilitate MOH with planning including drug ordering and estimating costs and funding gaps	WHO HQ					X	
SAE Handbook and Resources Package						X	
Supportive Supervision Checklist: To incorporate best practices for supportive supervision			X				
Tracker JRT and PZQ Forecast: To facilitate project oversight of drug supply chain		X					
Best Practices Guides e.g. For MDAs and for Social Mobilization		X					

* Sub-partners and national program managers are assumed collaborators across tools. New collaborators may be added during the development process.

NTD Operational/Implementation Research

An increasing number of operational research studies have been implemented with technical support from ENVISION and funding from USAID or BMGF. These studies stem from programmatic issues encountered by program implementers in the supported countries. ENVISION has taken an active role in formulating the research questions, and contributed to develop research proposals. ENVISION has been instrumental in providing the operational platform and participated in the field investigations especially in DRC, Ethiopia, Indonesia, Tanzania and Uganda.

ENVISION is playing a critical role in providing technical advice to address the major challenges faced by national program managers, creating opportunities for learning, and directly or indirectly supporting multi-year operational/implementation research-related projects. These operational/implementation research projects are addressing a wide range of issues, including the role of new diagnostic tests to evaluate the presence and progression of disease, evaluating improved survey methodologies for measuring disease prevalence and program impact, testing alternative data capture tools, supporting enhanced social mobilization and MDA techniques, and developing improved community-based strategies during MDA.

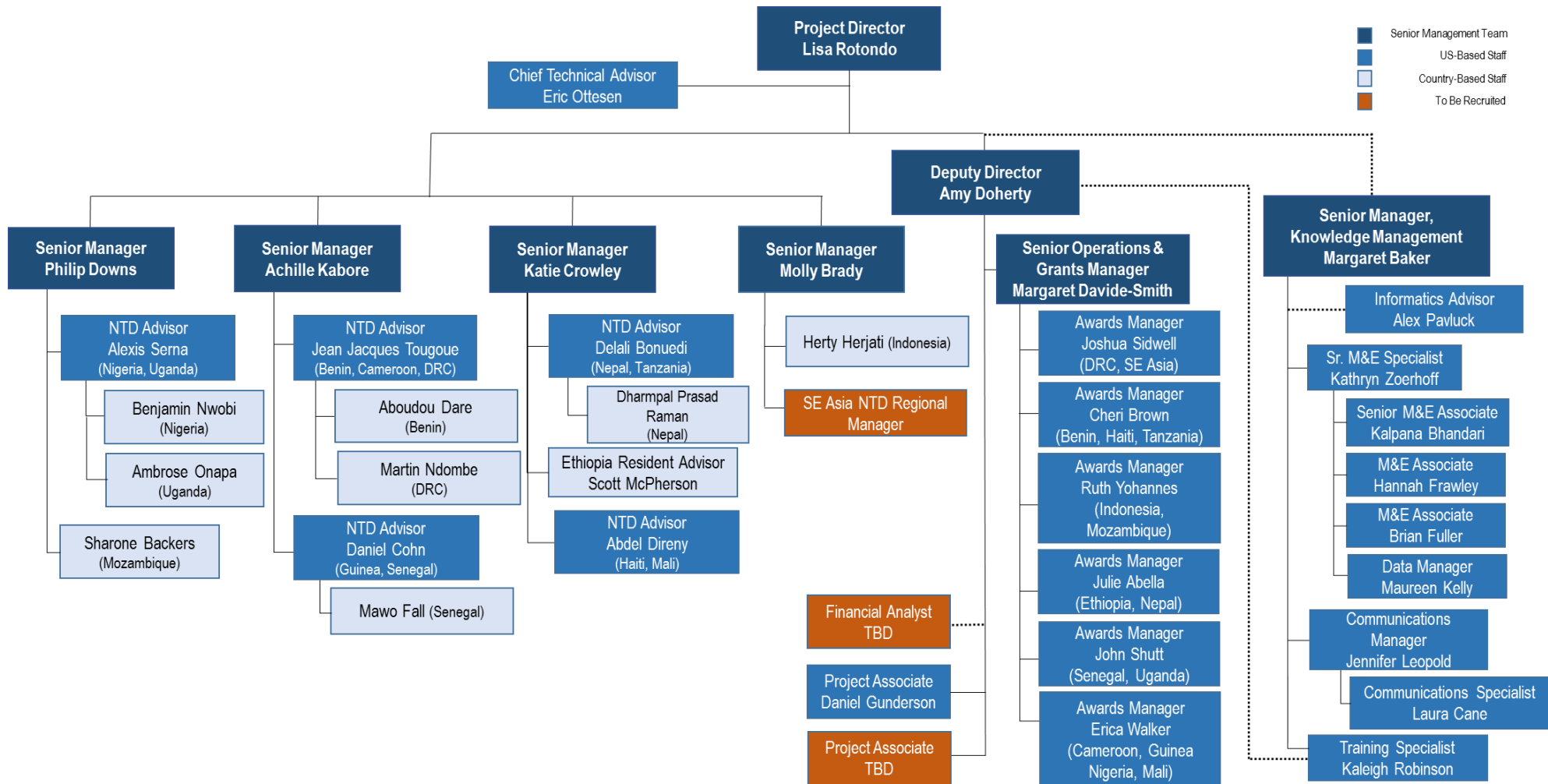
Table 35 provides a summary of operational/implementation research opportunities directly or indirectly supported by ENVISION, in collaboration with other NTD researchers such as the TFGH NTD Support Center (NTD-SC), FPSU, and CDC. All activities were conducted in partnership with the MOH and designed in response to the needs of the national programs. Unless the activity was included in an approved ENVISION work plan for FY15, funding for specific research activities came from another source and not from ENVISION. ENVISION has primarily supported operational/implementation research initiatives through its support of routine MDA and/or M&E activities; ENVISION technical and operational staff have provided direct technical support in leading research initiatives. In Benin ENVISION is collaborating with the TFGH and a local research institution on operational research to understanding LF transmission as it relates to urban and sub-urban settings. It is expected the results will serve for policy making in the field of LF MDA and surveillance in urban settings.

Table 35. NTD operational research under ENVISION, FY14-FY15

Diagnostic Tools
<p>Exploring alternative indicators for trachoma endpoint decision making</p> <p>Objective: to identify which tool is most appropriate for use with trachoma impact assessments to decide whether MDA can safely be stopped.- Part of a multi-center study comparing detection by clinical (TF), infection (PCR) and serologic (antibody by enzyme-linked immunosorbent assay [ELISA]) tools.</p> <p>Role of ENVISION: Support Trachoma Impact Assessments in targeted districts.</p> <p>Country: Uganda; Year: 2014 – completed; Collaborators: NTD-SC, RTI, GTMP, LSHTM, NTD-SC, WHO; Funding: BMGF</p> <p>Publication/Conference: Samples are to be processed and results to be provided by end of 2015.</p>
<p>The Epidemiological assessment of the distribution of LF and OV Using an Antibody-based Rapid Diagnostic Test</p> <p>Objective: Compare Biplex Antibody test for OV and LF to conventional ELISA.</p> <p>Role of ENVISION: Support Field-based survey teams</p> <p>Country: DRC; Year 2014 – completed; Collaborators: NTD-SC, RTI, CDC, APOC, MOH-DRC, WHO; Funding: BMGF</p>

Publications/Conference: A full report is expected by end of CY2015.
Survey Methodology
Assessment of LF status in urban setting Objective: to conduct side-by-side a community based and a school based surveys (Mini-TAS) along with entomological assessments for LF in two cities in Benin: Cotonou and Porto Novo Role of ENVISION: Technical support for proposal development and follow up Countries: Benin a; Year: 2015-2016; Collaborators: NTD-SC, RTI IITA-AgroEcoHealth Platform; Funding: USAID Publication/Conference: Not yet (field implementation to start before end of 2015)
Alternative Approaches to Coverage Surveys Objective: to compare the cost, time and feasibility of 3 different survey sampling methodologies (Expanded Program for Immunization approach, Lot Quality Assurance Sampling design, and probability sampling) for conducting coverage surveys. Role of ENVISION: Coordination and logistical support for trainings. Country: Uganda; Year: 2014-2015; Collaborators: NTD-SC, RTI; Funding: BMGF Publication/Conference: Preliminary results shared at ASTMH 2015 - Final results expected end-2015
Methods for Prioritizing Trachoma Population-based Prevalence Surveys Objective: To develop and validate methodologies for determining which districts should be targeted for district level prevalence assessments by population-based probability sampling. Role of ENVISION: Support of field studies and write-up Countries: Uganda ('14), Tanzania ('14), DRC ('14). Year: 2014; Collaborators: FPSU (DRC), RTI (Uganda, Tanzania); Funding: USAID Publication/Conference: ASTMH 2014; Presentation at Trachoma Scientific Informal Workshop 2015; manuscript development 2015
Develop a coordinated approach to stopping MDA in onchocerciasis/LF overlap areas Objective: Evaluation of impact of OV treatment on LF transmission using skin snip, ICT cards, WB123 and OV16 through DBS Role of ENVISION: Identify sites for study, contribute to protocol development, funding of skin snip survey Countries: Senegal (Region of Kédougou); Year: 2014-15 - completed; Collaborators: CDC, IMA, RTI, WHO; Funding: USAID Publication/Conference: EIS conference presentation _ Final report by end of 2015
Comprehensive evaluation of onchocerciasis using epidemiological and serological methods Objective: Comprehensive evaluation of onchocerciasis adding serological tests (OV16) to routine epidemiological surveys (nodule palpation and search for other skin lesions, skin snip) Role of ENVISION: Identify sites for study, contribute to protocol development, funding of skin snip survey Countries: Senegal (Regions of Kolda and Tambacounda); Year: 2014-15; Collaborators: RTI, NTD-SC WHO; Funding: USAID Publication/Conference: Serological samples to be analyzed at Smith College USA.
Coverage Assessment Tool Objective: Develop a rapid assessment tool to permit program managers to effectively assess coverage and compliance. Role of ENVISION: Coordination and logistical support for trainings Countries: Uganda, Ethiopia; Year: 2014-15; Collaborators: NTD-SC, RTI-Uganda, WHO; Funding: BMGF Publications/Conference: Presented at ASTMH 2015 - final analysis expected by end-2015
Treatment strategies
Optimizing approaches to improve MDA data flow Objective: to develop and expand current HMIS mTrac system (SMS-based) for the collection of MDA indicators and apply automated call system for monitoring drug supply (Reliefwatch). Role of ENVISION: Support of MDA and delivery of drugs Countries: Uganda; Year: 2015; Collaborators: UNICEF, NTD-SC, RTI, Reliefwatch; Funding: BMGF Publications/Conference: preliminary data shared at Coalition for Operational Research in NTDs and ASTMH

APPENDIX A: RTI ORGANIZATIONAL CHART FOR ENVISION



APPENDIX B. COUNTRY SPECIFIC PROGRESS IN REACHING MILESTONES

Tables below illustrate the proportion of districts in each country that have reached the milestone.

Benin

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	96%	46%
Trachoma	100%	0%	0%
Oncho	100%	100%	0%
Schisto	100%	41%	
STH	100%	76%	

Cameroon

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	91%	3%
Trachoma	100%	100%	29%
Oncho	100%	100%	0%
Schisto	100%	61%	
STH	100%	100%	

DRC³⁸

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	94%	3%	0%
Trachoma	97%	0%	0%
Oncho	100%	39%	0%
Schisto	94%	0%	
STH	94%	2%	

Ethiopia*

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	33%	0%
Trachoma	94%	27%	1%
Oncho	100%	82%	0%
Schisto	76%	30%	
STH	76%	28%	

*Reflect data received by ENVISION to date. Data will continue to be updated as receive additional information from non-USAID supported areas.

³⁸ Reflects data received by ENVISION to date. Data will continue to be updated as additional information are received from non-USAID supported areas.

Guinea

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	42%	0%
Trachoma	89%	100%	0%
Oncho	100%	100%	0%
Schisto	100%	29%	
STH	100%	100%	

Haiti

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF)
LF	100%	100%	32%
STH	100%	100%	

Indonesia

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	99%	59%	10%
Schisto	100%	100%	
STH	100%	30%	

Mali

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	100%	3%
Trachoma	100%	100%	70%
Oncho	100%	100%	0%
Schisto	100%	97%	
STH	100%	100%	

Mozambique

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	100%	0%
Trachoma	100%	60%	0%
Oncho	100%	*	*
Schisto	100%	89%	
STH	100%	100%	

* Mozambique is considered to be hypo-endemic for oncho; the treatment strategy in the context of oncho elimination is under discussion.

Nepal

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	100%	33%
Trachoma	100%	100%	100%
STH	100%	100%	

Nigeria*

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	95%	21%
Trachoma	100%	100%	43%
Oncho	100%	100%	0%
Schisto	100%	35%	
STH	100%	92%	

*Data reflect 9 USAID-supported states

Senegal

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	100%	0%
Trachoma	100%	94%	6%
Oncho	100%	100%	0%
Schisto	100%	97%	
STH	100%	100%	

Tanzania

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	100%	6%
Trachoma	100%	94%	65%
Oncho	100%	100%	0%
Schisto	100%	81%	
STH	100%	82%	

Uganda

	Mapping	MDA started	Under post-MDA, pre-validation/ verification surveillance (LF, Trachoma/ Oncho)
LF	100%	100%	30%
Trachoma	100%	100%	39%
Oncho	100%	100%	39%
Schisto	100%	100%	
STH	100%	100%	